

October 1942

CONSUMERS' RESEARCH

Bulletin



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BULLETIN

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Release of American Productivity Needed, Rather than Contraction of Output

ASSISTANT ATTORNEY GENERAL THURMAN ARNOLD, in charge of antitrust prosecutions, has rather detached himself from the general governmental theories now popular, and has declared himself "enthusiastically for a free economy, unrestricted production and competitive industry." "This nation," he said in an address in Chicago, "needs to get rid of the idea of a security economy and return to competitive industry. When the whole effort is directed toward economic security, then we get back to restricted production." In so speaking, Mr. Arnold says in a very few words what CR has always maintained—without support, as a rule, from the present coterie of governmental administrators, and all too little support from academic teachers of economics and government (who should know some practical economics, even if governmental agencies do not).

The official quoted senses the inherent conflict between security and abundance, realizing that a security economy is one that levels down, and one that must inevitably use restriction of industrial and commercial activity and output (rather than the freeing and encouragement of these) as its means of economic control.

There are signs that some millions of Americans are coming to sense the damage which has been done to the American economy by governmental attempts to realize an ideal of social and economic "security", and are ready to demand a return nation-

ally to the view that the effective system of industry and trade for people of the American quality of mind and habit of hard work is one which provides the most effective way of turning out products rapidly and distributing them with the fewest possible curbs or controls, private or governmental. People of this calibre and outlook do not devote their energies to contriving methods of limiting production, restricting output, "controlling" distribution, "stabilizing" markets, holding back business activity, and discouraging and cramping private initiative generally. There was an epoch only just before the war began when governmental administrators and professional critics of the American economic order were loudly asserting that our economy had become "mature," that it was rendered ineffective and inefficient by over-production and excessive plant capacity, that the problem of the hour was to *contract* our productive capacity so as to make it more "efficient"—and thus less ready for unusual or unexpected demands, whether for power, steel, shoes, or washing machines. With the recent memory of such pronouncements, it does not sit well with the American people (outside the District of Columbia and the suburbs around it) to have their governmental servants publicly berating business enterprisers in the press and on the radio for not having been ready to produce five, ten, or a hundred times their customary output upon the drop of a bureaucrat's hat. Govern-

(Concluded on page 10)

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Symbols used to indicate sources of data and bases of ratings: A—recommended on basis of quality; AA—regarded as worthy of highest recommendation; B—intermediate with respect to quality; C—not recommended on basis of quality; cr—information from Consumers' Research's own tests or investigations; 1, 2, 3—relative prices, 1 being low, 3 high (note that price and quality are completely differentiated in CR's listings—a quality judgment is independent of price); 41, 42—year in which test was made or information obtained or organized by the staff of Consumers' Research.

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The Consumers' Observation Post

TOYS in retailers' hands are in good supply at present, but do your Christmas shopping early for best selection, advises The Wall Street Journal. Tri-cycles, small bicycles, and marble games will be difficult to get once the present supply runs out. Lots of dolls are available, but doll carriages will probably be scarce. Prices of toys will be higher.

* * *

HEADACHE TABLETS were used by 51% of some 36,000 farm families queried in a Food for Home and Defense Survey in Missouri; 38% took baking soda, and 58% used laxatives. Tooth troubles were reported by 50%. The survey did not reveal whether there was any connection between tooth troubles and the taking of headache nostrums and laxatives.

* * *

HONEY due to wartime restrictions on sugar, has increased in demand not only by housewives, but by manufacturing concerns which use honey to supplement their sugar allotments. Some restrictions have been put on the amount of honey which a new commercial user may get, in order to safeguard regular honey customers.

* * *

NYLON waste will no longer be available for spun nylon hosiery. It is all being reserved for military needs. Department store trade reports for August brought the information that stores still had stocks of nylon and silk hose for women, and so long as there are any of these available, rayon hose are not expected to reach their sales peak.

* * *

COFFEE GRINDERS and HOME COFFEE ROASTERS are reported to have been stocked up by a big eastern department store to take care of its customers who can no longer buy their favorite blend, ready-ground. Many an antique shop and secondhand furniture and appliance dealer still has around a few of the square wooden or cast-iron coffee grinders of the sort Grandma used. Coffee in the bean is generally available from a number of coffee dealers, and roasting at home is not too big a chore for those who are fussy about their brew. Home roasting does not do too good a job as a rule, but at any rate it is better than using stale coffee, however skillfully and evenly the professional roasting was done.

* * *

CONFUSION, in a word, is the best summing up of the cause of the meat shortage. The chief share for the blame of the current shortage must be borne by the price policies of the government's Office of Price Administration, which fixed prices on cuts of meat but evaded the politically touchy problem of setting ceiling prices on livestock and on wages of farm and factory labor. The consumer, as always, bears the consequences of failure of proper governmental planning.

* * *

SHORTAGES are getting to be an old story—some are real and some rumored, and one of the latest is said to be a shortage of paraffin. This will affect not just the jelly makers and those who wrap picnic sandwiches in waxed paper,

but all housewives who use packaged cereals, crackers, and the like. The paraffined paper contributes to the fresh-keeping quality of packaged goods on the pantry shelf. Better save all your tin canisters for future use in storing foods. Lunch takers will be wise to get themselves substantial lunch boxes.

* * *

HOW MUCH MEAT did you use last year? According to statistics, the average person ate 141 pounds. The forecast is that only 138 pounds per person will be available this year and probably 129 pounds in 1943. There are lots of beans, cheese, eggs, and chicken available, however, so that if they do not become scarce too, the shortage will cause no actual hardship except to those who can't live without steak and roast beef.

* * *

PEPPING UP the soldier's morale with vitamin pills is the bunk. According to the study made at the University of Minnesota, U. S. Army tests on a group of soldiers ranging from 19 to 34 years in age indicated that extra Vitamin B-1, extra Vitamin C, and extra Vitamin B-Complex failed to increase muscular endurance or to produce any other measurable physical improvement. In summing up the problem, one scientist pointed out that there seemed to be little excuse for the therapeutic prescription of massive vitamin dosages for the tired businessman and the active clubwoman.

* * *

When CR in an editorial last May reported the public's irritation at the seeming inability of top men in Washington to obtain new sources of rubber or synthetic rubber, there were some who objected vehemently, or suggested that criticism of Washington's policies as to supplies and rationing of civilian goods was giving aid to the enemy.

That we were reporting a valid observation of the general public temper was borne out by the fact that the revolt against bureaucratic stupidities or mismanagement has finally become obvious even to those leading a sequestered existence in the District of Columbia, out of touch with the America of the crossroads and the filling station. It was on account of this strong public dissatisfaction with both the method and the manner of the rationing set-up and publicity, that a trade journal was able to report in July that a "Rebellion by the Public" had for the time averted gas rationing in the middle and far-western states.

The average American, brought up on the tradition of American initiative and our ability to overcome all obstacles in the he-man fashion of the great railroad and auto-manufacturing pioneers, just doesn't believe that anything is impossible either in production for the war effort or for consumers' essential needs for automobile transportation—if those with special axes to grind and special interests to serve will just keep their monkey wrenches out of the machinery.

* * *

NEW AMERICAN WATCHES are becoming scarce according to an expert watchmaker in a leading eastern city. He attributes the shortage to curtailed production of watches for civilian use, and current rapid sales to people experiencing prosperity from the war industries. There are still excellent watches, and plenty of them, particularly pocket watches, available on the secondhand market at a fraction of the cost of a new watch of the same grade.

* * *

BARGAINS IN COSMETICS:

EATON THEATRICAL COLD CREAM (Eaton Laboratories, Merchandise Mart, Chicago; distrib. Sun Ray Drug Co., Philadelphia), 29¢ plus tax for a 1-lb. tin.

BELLE FLEUR COLD CREAM (Belle Fleur Products Co., Atlanta, Georgia; distrib. H. L. Green & Co., variety chain stores) 27¢ plus tax for 14-oz. jar.

HOLLYWOOD EXTRA THEATRICAL (Cleansing) Cream (Distrib. The Rabin Co., Los Angeles) 25¢ plus tax for 8-oz. tin in many "5-and-10" stores.

MINER'S also put out an 8-oz. tin at 25¢ plus tax.



Fig. 1—Some of the sewing machines studied and critically examined by Consumers' Research.

Sewing Machines

An Up-to-Date Study

HOME SEWING is an art in which many older women are very expert, though relatively few young people have shown much interest in it in recent years. There is no doubt that there will be a marked revival of interest and skill in home sewing, because of increasing difficulties in securing good-quality ready-made clothing in suitable sizes and styles at reasonable prices. Sales of piece goods and dress patterns have lately increased 40 to 50%, and courses in home sewing are enjoying widespread popularity. Many old but good sewing machines will be rescued from the attic, dusted off, cleaned and oiled, and put to extensive use during the war years. Some will be modernized by the addition of an electric motor, perhaps a new cabinet.

Many of those not fortunate enough to possess an old sewing machine that can be made to work efficiently will be in the market for a new one. Although production of new sewing machines is stopped at least temporarily, by order of the War Production Board, it is believed that there are sufficient stocks in dealers' hands to meet home-sewing needs for some time to come. Certainly many used machines are to be found by the experienced hunter after household appliance bargains at town

and country auctions, and in the many thousands of secondhand household-furnishings stores located in all larger cities and towns. If you have need for a new sewing machine or a second-hand one, rebuilt, or "as is," now is surely the time to buy, while a wide choice is still available.

Types of Sewing Machines

To many women, a sewing machine is just a sewing machine, and an expensive one is assumed to be better than any and all cheaper ones. The differences between types of sewing machines are very real and very important, and anyone who plans to trade in or buy a sewing machine will find it worth while to understand these differences, which are not at all difficult once the reader understands the major classes into which all kinds and makes of sewing machines fall.

There are two main classes, according to type of stitch produced—(1) chain stitch or (2) lock stitch machines.

Chain-Stitch Machines

This type of sewing machine is not used much at the present time, although it is the simplest one made, and runs with remarkable lack of noise and vibration. It has no bobbin, for it does the whole job with a single thread, feeding from a spool at the top

of the machine. On one side of the material, the stitch appears as a sort of chain. This type of stitch limits the machine's uses, for stitching in many cases must be done in such a way that the chain, which is more conspicuous than an ordinary machine stitch, will not show. The chain-stitch machine cannot be used advantageously for such special types of stitching as tucking, darning, or shirring. A further disadvantage lies in the fact that if some part of the thread is accidentally caught and broken, a whole seam may unravel in a moment, with possibly embarrassing results.

One important advantage possessed by chain-stitch machines is particularly worthy of note by families having a number of growing children, especially girls, for chain-stitch machines are extremely well adapted to the problem of making over clothing, on account of the ease with which the stitching can be removed when desired. This gives it a special advantage for the learner, too, since stitching which has been incorrectly located can be easily removed. Another advantage of the machine is its simplicity and the fact that it is not dependent for satisfactory action upon a number of adjustments which are more or less delicate and perhaps somewhat difficult for the beginner to make. It may be added that those who like the chain-stitch machines are often very enthusiastic about them. Of course the choice of any sewing machine is in part a matter of personal preference or adaptability or what one is used to.

Lock-Stitch Machines

These use two threads, one feeding from a spool to the needle, the other from a bobbin in a shuttle mechanism below the bed plate of the machine. Lock-stitch machines are made with several types of shuttle mechanisms:

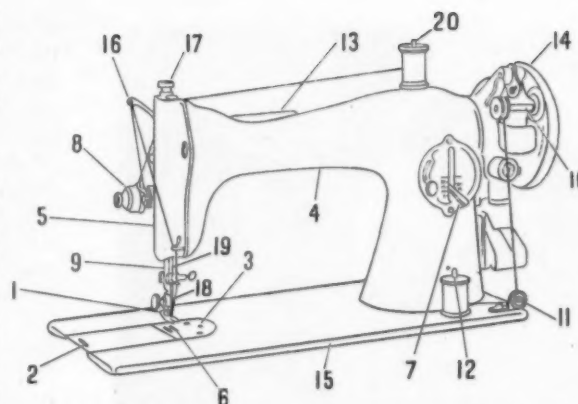
a. The long-lever long-shuttle machine, in which a long, cylindrical shuttle holding a long slender bobbin (about 1 inch to 1½ inches long) moves back and forth at the end of a long swing

lever (Fig. 3). This type of mechanism sets up too strong a vibration to be practical when sewing must be done at high speed.

b. Short-lever long-shuttle. This is a modification of the long-lever shuttle machine, but the shuttle is mounted at the end of a short lever (Fig. 4). It is a fully satisfactory mechanism on a treadle-operated machine but, like the long-lever type, vibrates too much when driven at high speeds by an electric motor. It is important to note, however, that the long-shuttle machine is inherently the simplest type and most easily adjusted of the lock-stitch machines, and no one need hesitate to buy a machine of this type if she is prepared to operate it no faster than it would be run if treadle-operated. Short-lever shuttle-type machines are priced about $\frac{1}{4}$ less than the so-called round-bobbin type, which is the next higher-priced machine.

c. Round-bobbin rotary-action. In this type (Fig. 5), the shuttle makes a complete revolution, the hook of the shuttle catching the loop of thread carried by the needle in its downward travel and passing it around the stationary bobbin case containing the flat bobbin (about 1 inch in diameter), which is wound with the "under-thread." The loop of "needle-thread" is cast off by the shuttle hook (the under-thread having been enclosed by the needle thread), and the take-up lever moves up and tightens the stitch. Occasional difficulty with thread jamming is characteristic of the rotary, as well as the oscillator mechanism next discussed. (This, however, need be no problem if the operator makes it a rule never to turn the hand wheel in the wrong direction and always carries the two thread-ends toward the back of the machine before starting a seam.)

d. Round-bobbin oscillating-action. Similar to the rotary type (Fig. 6) except that the shuttle, instead of making a full revolution, makes approximately



Original drawing by Courtesy of Singer Sewing Machine Co.

Fig. 2—Principal Visible Parts of a Typical Modern Sewing Machine.

- | | |
|-----------------------------------------------------|-------------------------------------------|
| 1. Presser foot. | 12. Bobbin winder spool pin. |
| 2. Bobbin slide-cover. | 13. Lamp. |
| 3. Throat plate. | 14. Balance-wheel, or Hand-wheel. |
| 4. Arm. | 15. Bed plate. |
| 5. Face plate. | 16. Thread take-up lever. |
| 6. Feed dog. | 17. Presser-bar pressure-adjusting screw. |
| 7. Reversing and length of stitch regulating lever. | 18. Needle. |
| 8. Upper tension. | 19. Needle bar. |
| 9. Presser bar. | 20. Spool pin. |
| 10. Bobbin winder. | |
| 11. Bobbin winder tension discs. | |

half a revolution, during which the hook of the shuttle catches and carries the loop of thread from the needle around the round flat bobbin (which is about 1 inch in diameter). As the shuttle reverses, the loop is cast off the hook; the action from this point is essentially the same as in the rotary mechanism.

A given manufacturer may use rotary and oscillating shuttles in different machines. In some machines the shuttle moves in a vertical plane, in others in a horizontal plane. Mechanically, the vertical position for the shuttle is preferable to the horizontal because it eliminates one change of direction of motion in the driving mechanism. Strictly from the standpoint of convenient use, the horizontal position of the shuttle makes insertion of the bobbin easier, though it has the disadvantage that somewhat more frequent servicing may be required. When all factors are considered, rotary and oscillating types of action seem to be more desirable

than the lever action used in machines having a reciprocating shuttle, if high speed electric motor drive is considered important.

When the amount of sewing to be done is small, or there is some uncertainty as to the future prospects in this respect, a treadle-operated machine will serve every purpose, though some would not find the appearance of the treadle machine satisfactory, in comparison with a more modern machine, if it is to be kept in one of the living rooms of the home. Women who are skillful at sewing or who sew a great deal will usually want an electrically driven machine if they live in a district where reliable electric service is available. But note that if you already have a treadle-operated machine in good condition and of the right type for electric operation at high speed (that is, not a long- or short-lever shuttle machine), there is no need to turn it in on a new one, for an electric motor outfit or attachment that will serve the purpose can be bought at around \$10 to \$15, and easily applied to the present machine. (A more slightly and workmanlike job can be done by any good mechanic who can drill and tap the vertical part or pillar of the arm, attaching the motor by screws.)

Mechanical Features

Motors

The built-in motor with gear drive is an advantage as it eliminates a certain amount of slip that is unavoidable when a separate motor with friction-wheel drive is used. Some few machines have a short belt drive, and with this type, slippage is less of a problem. With a machine having a built-in motor, repairs may be somewhat more difficult.

Some machines are equipped with motors that are too small to handle heavy sewing. Hence, in trying any machine, be sure that the motor is powerful enough to drive the machine evenly at

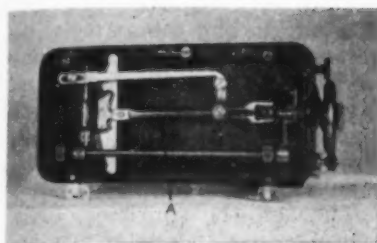


Fig. 3—Lower side of the bed-plate of a long-lever shuttle-type machine. A is the long lever.

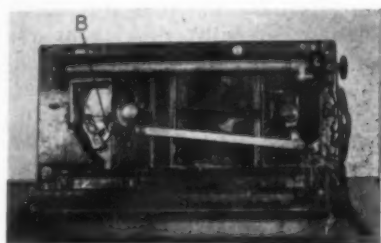


Fig. 4—Lower side of the bed-plate of a short-lever shuttle-type machine. B is the short lever.

low speeds. If the motor stalls easily at low speeds, or fails to start until the control lever is pushed to the high speed position, the motor size is probably skimpy and there will be some risk in purchasing the machine. This may seem a small point before buying, but a motor that does not drive smoothly at low speeds can later be a source of much inconvenience and inefficiency in the use of the machine. To avoid the racing or galloping of the machine when the motor starts suddenly as the control is advanced beyond the low-speed position, it is a good idea to get the habit of helping the motor by a slight turn of the hand wheel. In this way a slow, steady speed at starting is more easily assured.

Tension Adjustment

Correct adjustment of the tension and the ease with which the adjustment can be made are perhaps the most important features of the sewing machine. Some manufacturers claim that their upper tensions are automatic under different sewing conditions, i.e., thread sizes, thickness of material, etc., but CR knows of no machines in which this is effectively the case. On some models, a series of numbers is marked

on the upper tension adjustment to facilitate resetting the tension for known conditions. There are some who consider this a desirable feature. Adjustment of the tensions is something with which every sewing-machine operator should familiarize herself, for it is vital to the satisfactory practical use of any machine. Because of its importance, this subject will be explained in detail in a forthcoming article.

Presser Foot

On some machines, the presser foot is rigid, on others, hinged. The hinged type is preferable, for it simplifies sewing over heavy seams.

Reversing Mechanisms

Many women find the reversing mechanism provided on some machines an advantage, for it permits the fastening of seams, reinforcing pockets at the corners, and some difficult types of mending which are done simply by the moving of the control lever with one hand while the work is guided by the other, the motor remaining in continuous operation. It should be noted, however, that machines do not sew so well in reverse as in the forward direction because the teeth which move the material are working backwards, and they do not feed the work so definitely in that direction.

Shock Hazard

Sewing machines on the whole are well constructed from the standpoint of electrical safety, though two were found that involved a certain degree of hazard as regards the connection to the sewing lights. These two machines had internal connections (carrying the full voltage of 115 volts) that could be exposed and come into contact with the user or a screw driver or oiler held in her hand, under certain conditions. [The more hazardous one of these is shown at X Fig. 7.]

Servicing

The availability of prompt, efficient service for repairing a sewing machine should be given considerable weight before any

purchase is made. Under normal conditions, anyone not mechanically inclined, who is unable to make minor repairs and adjustments, would be justified in purchasing a B. Intermediate machine of a make for which good repair services are certain to be available (as indicated by experience of other women in a given locality), in preference to an A.

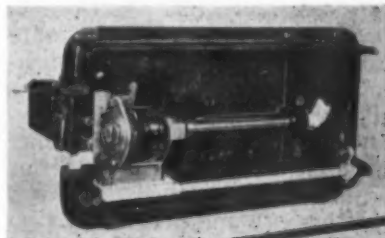


Fig. 5—Mechanism of a round-bobbin rotary-action machine with bobbin in vertical plane.

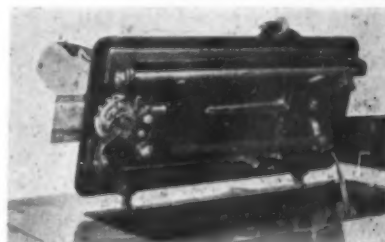


Fig. 6—Mechanism of round-bobbin oscillating-action machine with bobbin in horizontal plane (when machine is in operating position).

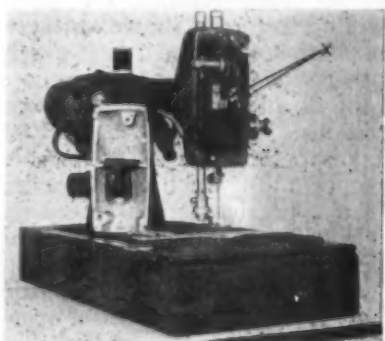


Fig. 7—A machine with face-plate removed with live electrical parts exposed at X.

Recommended machine of a kind on which servicing is either not available or is uncertain in quality. At present, this rule would perhaps be given less than normal consideration, for it is quite possible that repairs and adjust-

ments of any and all types of machines may become difficult to obtain except in the larger cities and towns; and at present there is even some doubt about the availability of repair parts. It is certainly a good time for any woman to become familiar with the details of her sewing machine, *and learn how to clean, oil, and adjust it and take care of it as women of the past generation very commonly did.* At Cornell, one of the greatest of the state universities, experience in teaching students and farm women has shown that most women can master the mechanics of the sewing machine sufficiently to carry out adjustments properly, to keep it in smooth and practically perfect running order. Some women, with a little experience can, indeed, do a better job in this respect than is often done in practice by many a sewing machine dealer or serviceman.

Important Points to Remember

Don't buy a long-shuttle machine, of either the long-lever or short-lever type unless the machine is to be used for treadle operation only, or at speed equivalent to treadle operation. There are some who like the simplicity and reliability of the long-shuttle machine and who, because of the small amount of work they do, or for other reasons, are quite willing to forego the advantages of high-speed operation which other types afford. Most important of all, don't buy a sewing machine that has the thread take-up included in the needle bar (Fig. 8). Such machines are of a type that is now obsolete. Their proper adjustment is difficult. A separate thread take-up lever, independent of the needle bar, gives very much better operation.

Don't buy a machine that has the upper-tension-regulator located on top of the arm near the spool holder (Fig. 8). This type of tension-regulator does not maintain uniform tension, is difficult to adjust, and requires constant attention.

Don't buy any sort of sewing machine that has a freak or unusual mechanism. Such machines always involve risk even

to an experienced sewing machine user.

Avoid, too, any very old machine such as those having a "fiddleback" base plate (so-called from the resemblance of the irregular and peculiarly curved bed-plate design to a violin back).

If the reader will keep these points in mind, she will be safe in buying at an auction, for example, almost any machine offered (if not of too obviously old vintage) which is complete and in working order. In fact, she

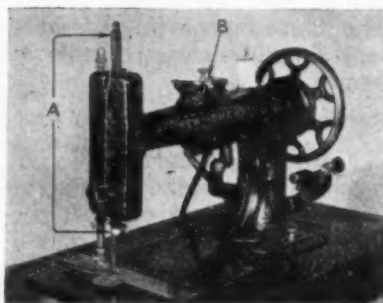


Fig. 8—In the above machine, around 20 years old, the thread take-up is included in the needle bar **A** (which moves up and down as a unit). This is undesirable. Also undesirable and common on old and some recently manufactured machines is the type of tension regulator shown at **B**.

may often get a better sewing machine for \$10 or so than she might have obtained at a department store or sewing machine dealer's, had she bought in the low-priced class of new machines, at around \$50 or more.

After you have selected the machine which meets your requirements, it is advisable, before completing the transaction, actually to sew on the machine. When buying from a mail-order house, this is not possible, of course, but if the mail-order house has a retail store in your vicinity, it would pay to examine and sew on a similar model in the store. (As many have learned, the woman buying by mail rather than at the retail store, gets the machine at the lower price.) Start by threading the machine yourself according to the instruction book; some machines are easier to thread than others. Sew a small rectangular piece of fabric

without guiding the material, to determine whether the machine feeds correctly and evenly, and hence sews in a straight line. A machine that does not sew in a straight line when given this test should not be purchased.

Through the courtesy of the manufacturers whose names appear in the listings, the machines reported, with the exception of the two chain-stitch machines and the *Franklin Long Shuttle*, were lent by the manufacturers or their distributors with an assurance (all but one furnished affidavits) certifying the machines were not specially selected but represented random samples from stock. They were examined and tested independently by three consultants, all experts in the sewing machine field. Our engineers are especially indebted to Professor B. B. Robb, of the Department of Agricultural Engineering of Cornell University, who devoted many hours of time and study to the problems discussed in this article and whose long and highly specialized experience and knowledge in this field have been invaluable to CR's readers and to many other thousands who have had the benefit of his teaching and advice at Cornell.

Prices are current so far as can be determined, and when they are not correct specifically for a given machine or locality on account of present rapidly changing conditions, they can nevertheless be depended upon to be useful in a relative sense.

Round-Bobbin Rotary- and Oscillating-Action Machines, Cabinet Type

For those who desire a new electrically driven machine, one of the following is to be preferred. Listings have been placed in what is judged to be the order of merit of the machines, without respect to price. The final choice between these machines for any given purchaser should depend of course upon the amount of money that is to be expended, but primarily upon the amount of sewing to be done. For a person who does only a small amount of sewing, purchase of any high-priced sewing machine would be unwise; such a person would

often save money by paying someone to do her sewing; or by buying a second-hand machine of good type and make at a moderate price.

A. Recommended

Singer, No. 201-2 (*Singer Sewing Machine Co.*, 149 B'way, New York City) \$172 with No. 40 cabinet. Horizontal-round-bobbin, rotary-action type of mechanism. Had stitch- and tension-regulators with numbered markings. Built-in motor, gear drive. Probably the best sewing machine built. **AA3**

Singer, No. 15-91 (*Singer Sewing Machine Co.*) \$156 with No. 47 cabinet. Vertical-round-bobbin, oscillating-action type of mechanism. Had numbered stitch and tension regulators. Built-in motor, gear drive. Needle threads from right to left, which may be a disadvantage. Judged by one consultant as, on the whole, the most practical of all *Singer* models listed. **AA3**

White, No. 97-77 (*White Sewing Machine Co.*, Cleveland) \$142. Vertical-bobbin, rotary-action type. Had numbered stitch and tension regulators. Detachable motor, with friction drive. Mechanically one of the best machines made. **AA3**

White, No. 45-43 (*White Sewing Machine Co.*) \$114.50. Like 97-77, vertical-rotary type. Had numbered stitch and tension regulators. Detachable motor, friction drive. **AA3**

White, No. 43-41 (*White Sewing Machine Co.*) \$104.50. Head essentially same as head of *White* 45-43. **AA2**

Singer, No. 66-18 (*Singer Sewing Machine Co.*) \$107.50 with No. 41 cabinet. Horizontal-round-bobbin, oscillating-action type mechanism. Stitch regulator numbered for forward direction only, upper tension regulator not marked or numbered. Presser foot not hinged. Detachable motor, V-belt drive. A slight vibration was noted over a wide range of speeds. **A3**

Franklin De Luxe, No. 117-851, *Sears-Roebuck's* No. 20—22085F. (A *White* machine.) \$62.95 plus freight. Available also in other cabinets at \$55.95 to \$79.95, plus freight. Vertical-round-bobbin, rotary type. Numbered stitch and tension regulators. Detachable motor, friction drive. The *De Luxe*

is similar to *Franklin* No. 117-113 except that *De Luxe* had reversing mechanism and other minor refinements. Sold in *Sears-Roebuck* retail stores under the name *Kenmore*. Excellent value for the money. **A1**

Franklin, No. 117-113, *Sears-Roebuck's* No. 20—21913F. (A *White* machine.) \$54.95 plus freight. Available also in other cabinets at \$37.95 to \$71.95, plus freight. Vertical-rotary type. Numbered stitch and tension regulators. Lacked

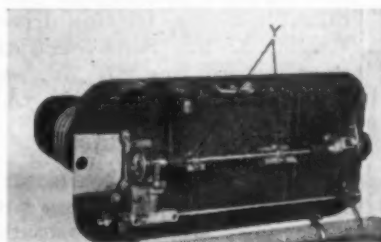


Fig. 9—In this machine (*Montgomery Ward's Supreme*) the balancing weights (shown at Y) added to reduce vibration difficulties were not firmly secured or locked in position as they should be for permanence of adjustment.

reversing mechanism. Detachable motor, friction drive. Presser foot not hinged. Extension leaf of cabinet not well supported. This machine, properly adjusted, considered excellent value for the money. Sold in *Sears-Roebuck* retail stores under the name *Kenmore*. **A1**

New Home, Model NHR (*The New Home Sewing Machine Co.*, Rockford, Ill.) \$109.50 to \$179.50. Vertical-rotary type. Numbered stitch and tension regulators. Detachable motor, friction drive. Essentially same as *Free-Westinghouse Model ARE* except for motor, but better finished throughout. Extension leaf of cabinet not well supported. **A3**

B. Intermediate

Free-Westinghouse, Model ARE (*Free Sewing Machine Co.*, Rockford, Ill.) \$109.50 to \$179.50. Vertical-rotary type. Had numbered stitch and tension regulators. Built-in motor, friction drive. Essentially same as *New Home Model NHR* except for motor, but workmanship judged somewhat inferior. Extension leaf of cabinet not well supported. **B3**

MW Supreme, *Montgomery Ward's* No. P185—562. \$71.95 plus freight. Available also in other cabinets at \$61.95 to \$102.95, plus freight. Vertical-rotary type. Numbered stitch regulator, but upper tension regulator not marked. Built-in motor, friction drive. Balancing weights not firmly secured (see Fig. 9). Offered a small degree of electrical shock hazard when cleaning or oiling behind face-plate. **B1 to B2**

MW De Luxe, Model B, *Montgomery Ward's* No. P185—242. \$53.95 plus freight. Available also in different cabinet at \$58.95 plus freight. Vertical-rotary type. Had numbered stitch regulator, but upper tension regulator not marked. Lacked reversing mechanism. Built-in motor, friction drive. Presser foot not hinged. Extension leaf of cabinet not well supported. Balanced similarly to *MW Supreme* (see Fig. 9). Considerable vibration. **B1**

C. Not Recommended

Any round-bobbin rotary- or oscillating-action machine priced at \$30 to \$35 new. (The exact price below which machines of definitely unsatisfactory design are sold differs with the store. It is noted that some department stores are selling machines of fundamentally unsuitable design at prices as high as \$59.50, and prices of \$35 to \$50 for these undesirable types are not uncommon in one large city where prices were studied.)

Long-Shuttle Type

This type of machine, because of vibration at high speeds, should not be offered for sale when electrically driven unless with a control so designed and adjusted as to prevent operation at high speed. The long-shuttle machines will serve every purpose for many users who need to operate a sewing machine only at moderate speeds, whether by treadle or electrically. The short-lever type of shuttle mechanism is much preferable to the long-lever type.

B. Intermediate

The following would be rated A when treadle-driven or operated electrically at low speeds:

Singer, No. 128 (*Singer Sewing Ma-*

chine Co., 149 B'way, New York City) \$85. Short-lever, long-shuttle type. Stitch-regulator and upper-tension-regulator not numbered. Detachable motor, V-belt drive. Lacked reversing mechanism. Presser foot not hinged. Judged best of the long-shuttle machines available. **B3**

Franklin (White), Sears-Roebuck's No. 20—21742F or 21842F. \$29.95 and \$39.95 plus freight. Short-lever type. Presser foot not hinged. Judged best value for money in this type of machine. pt42 **B1**

New Home, Model LN (The New Home Sewing Machine Co., Rockford, Ill.) \$92.50 to \$162.50. Short-lever type. Had numbered stitch regulator, but upper tension regulator not marked. Detachable motor, friction drive. Presser foot not hinged. Extension leaf of cabinet not well supported. Vibration excessive at high speeds. **B3**

C. Not Recommended

Free-Westinghouse Rotoscillo, Model CEE (Free Sewing Machine Co., Rockford, Ill.) \$92.50 to \$162.50. Short-lever type. Had numbered stitch regulator, but upper-tension-regulator not marked. Lacked reversing mechanism. Detachable motor, friction drive. Presser foot not hinged. Extension leaf of cabinet not well supported. Would be rated **B** if treadle-driven, or if operated at low speed, electrically. **C3**

Portable Sewing Machines

Practically all of the cabinet machines previously listed are obtainable as table-model or portable machines, the only difference being in the cases. Since the cases themselves are generally satisfactory, such machines receive the same ratings as their corresponding cabinet models. In addition to these full-size portables, there are specially built "suitcase machines" having smaller-than-normal heads. These are strictly for travelers, and the homemaker should resist the temptation to purchase one for home use. (Even the full-size portables are only very rarely to be considered as desirable for purchase for regular home use, as compared with the regular console or cabinet type.)

A. Recommended

Singer, No. 99-24 (Singer Sewing

Machine Co., 149 B'way, New York City) \$91.50 with table similar to usual collapsible card table. Horizontal-round-bobbin, oscillating-action. This is essentially a three-quarter-size model of the *Singer No. 66-18*. **A3**

C. Not Recommended

MW Portable, Model R, Montgomery Ward's No. P185—2122. \$42.95 plus freight. Long-lever, long-shuttle type, an undesirable type for electrical operation. Had numbered stitch regulator, but upper tension regulator not marked. Detachable motor, friction drive. Weight, 32 lb. Some electrical shock hazard (see *MW Supreme* and Fig. 7). **A1**

Chain-Stitch Machines

The following machines are excellent in mechanical design and details, very simple to operate, durable. Before considering the purchase of one, the consumer should weigh carefully, in terms

of her own problem, the advantages and disadvantages of the chain stitch produced by these machines as described in the text of this article.

A. Recommended

Singer, No. 24-80, Portable (Singer Sewing Machine Co., 149 B'way, New York City) \$99. **A3**

Willcox & Gibbs (Willcox & Gibbs Sewing Machine Co., 214 W. 39, N.Y.C.) \$98; with console cabinet, \$115. **A3**

NOTE: We learn that since the above article was written, Sears-Roebuck and Montgomery Ward mail-order houses have stopped selling sewing machines. These companies' retail stores, however, will still have some machines available, in certain localities. The prices of these will be somewhat higher than prices of the corresponding machines formerly listed in the mail-order catalogs (upon which the prices given in the listings of Sears and Ward machines in this article are based).

Release Productivity

(Continued from page 2)

mental agencies are now pouring billions into attempts to increase manufacturing-plant productive capacities at a rate that is simply incapable of being carried on with efficiency or even reasonably effective results from the standpoint of output planning and coordination. (Such coordination is vital and assures the availability of goods where and as needed, and in the correct amounts.)

If all of the criticisms loudly voiced in pre-war times that America's productive capacity was excessive, were false and misleading, the ordinary salary- or wage-earning American may well wonder why the views of the same people who voiced such criticisms should now be given weight when they turn to the opposite argument and insist that American industry is too small in viewpoint and attitude to provide for the necessities of a war economy. The working American, too, should be critical of any governmental leadership which constantly falls back on the superficially easy method of dividing up the readily available supplies as a satisfactory or permanent solution for any problem, for the spirit which has made America the arsenal and supply source of the anti-Axis world has been one that put drive and fast movement into production and distribution and was always restive under restrictive controls. It is coming to be everywhere recognized that the war effort has been tremendously delayed by the needless form-filling, and endless and mountainous special reports and accounting, and a whole series of incredibly complex and contradictory administrative set-ups that have tangled and confused every Washington-centered production-and-price-management scheme to date.

One notes with pleasure Assistant Attorney General Arnold's conviction of the need for our getting rid of the currently fashionable idea of a security- or scarcity-economy and to return to virile, driving, working, competitive individuals and businesses. A competitive economy has inherent capacities to produce and distribute goods in quantity, goods where and as needed, both for the civilian population and our armed forces. No collectivist or totalitarian or other centrally-managed, bureaucracy-ridden economy has ever been able to do this. **F.J.S.**

From Oil to Coal

for Heating of the Home and Hot Water

The Urgent Problem of Conversion

DESPITE belated and confusing government advice urging oil-burner owners to convert to coal whenever conversion of house-heating equipment is possible, only a very small proportion of consumers to date have followed the advice and had the necessary alterations made to their heating plants.

The public apathy to conversion is readily understandable, for it is often an expensive process. Serious mistakes are possible, and the conflicting statements and confused announcements emanating from Washington on the subject have been such as to leave the average man pretty much in a state of mind to say, "Let me know when you've made up your mind." Mr. Average Man, accustomed for a period of years to having the things he wants when he wants them, no doubt also supposes that the fuel oil situation may improve as the necessity of moving oil stocks becomes more and more pressing with the approach of winter. Many hesitate to reduce the values of their investment in their home. Such views of the situation, though understandable, may prove to be short sighted, for some oil-burning equipment cannot be converted to burn coal, and the owners of such units should necessarily be given preference if and when fuel oil is rationed (at the time of writing this seems to be extremely likely, at least in the eastern states).

Many, too, do not relish the idea of abandoning, even only temporarily, their investment in oil-burning equipment and going back to shoveling coal and removing ashes. They hope that "the other fellow" will convert in sufficient numbers and thus leave adequate supplies of fuel

oil for themselves.

It has been estimated by the War Production Board that there are over 1¼ million oil burners in the 17 Atlantic Coast states where oil supplies are expected to be short this winter, and between 300,000 and 400,000 of these must be converted to coal if there is to be sufficient oil for the remainder that either cannot be converted to coal, or can be converted only at inordinate cost.

While the estimates of the WPB on the number of burners which must be converted may be high because of many unpredictables, such as the severity or mildness of the weather, the future available oil supply, availability of transportation, etc., **CR strongly advises those of its subscribers who can convert their equipment to coal for the duration to do so without delay.** The following information is given to facilitate such conversion.

Conversion Units to Avoid

If you have a gun-type oil burner, which is the simplest to convert, you have probably noticed recent advertisements in the newspapers of a type of device which "Converts furnace from Oil to Coal—or back again in 8 minutes," permits you to "burn either oil or coal," and makes other glowing claims. While these claims may be true in a legalistic sense, the consumer who relies upon them is in for serious disappointment, and subscribers are advised not to consider the purchase of such devices unless as a last resort if all other means of conversion fail.

One device now widely advertised is known as the *Convert-O-Grate*, distributed by several department stores at \$25 to \$45

(depending on size), \$24 additional for installation. It burns pea coal and uses the oil-burner blower to provide the necessary draft. There are a number of rather serious disadvantages to this contrivance and others that aim to provide a similar solution to the problem.

a. The construction is such that the effective grate area is reduced considerably, consequently reducing the heat output of the furnace and boiler. In some cases this may not be a serious fault, since it is expected that consumers will heat fewer rooms, and heat those to a lower temperature.

b. The device has very unsatisfactory and inadequate provisions for removing ashes. They must be poked through the openings of the grate bars and then removed from the ashpit through a small opening, with a little ash-hoe, which is bound to be a slow, troublesome, and dusty process. (In another device now being offered, the *Stoket*, an additional disadvantage is the necessity of removing the non-combustible residues from the fire as clinker, which must be broken up into pieces with a poker and taken out through the fire door—while the fire is still burning; this is clearly an unsatisfactory and impracticable arrangement.)

c. The quantity of air supplied by the oil-burner fan will in many cases be incorrect for efficient combustion under the new fuel-bed conditions.

d. The oil burner may be damaged to some degree by its use in the way contemplated by the manufacturers of the conversion unit.

The claim that the furnace can be converted back to oil at will means little, for this is true for almost any furnace now being

converted, provided the oil-burner parts are saved, and if oil is rationed, it is extremely unlikely that it will be important to the owner of a converted oil burner to be able to turn it back to oil at a moment's notice. In other words, this is a sales argument, not a point of practical importance to the average user.

No one should buy any conversion device until he has read the *directions for use and operation*, for upon close reading of these instructions, difficulties and inconveniences will plainly appear that one gets no hint of in the sales talk or the sales literature distributed by the "demonstrator." Famous big-city department stores, whose executives should have access to competent technical consulting services, are greatly at fault in offering, as many are at the present time, a variety of wholly impracticable or grossly inconvenient and ineffective oil burner conversion devices. The makers of these have notably failed to apply qualified engineering brains to the development of their product. If the situation turns out as badly as now seems possible, it may be that some consumers will feel that they have ground for action in damages against the stores which did not take even ordinary business precautions to satisfy themselves that the contrivances offered afforded a reasonable degree of sound engineering design, practicality, and workableness. The situation may even be so bad as to result in complete failure of household heating during severe weather, with danger of damage to the heating plant by freezing of pipes or radiators.

The wording of some of the circulars used in selling these devices can only be described as "tricky." Some are even making an appeal to patriotism, that if you buy their conversion unit you will be releasing fuel and transportation for the war effort. Actually, you are much more likely to be putting extra burdens

on transportation and the scarce services of heating-plant repairmen and servicemen, because of the difficulties in keeping the unit operating; in many cases it may be necessary after a period of trial to convert to a really workable system of coal-burning, or back again to oil-burning.

* * *

In addition to the *Convert-O-Grate* and *Stoket* already discussed, other so-called conversion units have come on the market. Among these are: *Konver-To-Kol*, *Victory Grate* and a Sears-Roebuck *Hercules* (all apparently very similar to *Stoket* and open to the same sort of objections).

How to Approach the Problem of Conversion to Coal

The first step is to determine whether the equipment in your home is of the type that can be readily converted. There are three main types of oil-burning systems:

1. *Units which originally burned coal.* If you rent or own a house in which someone else installed the oil burner and hence are not sure that the unit ever burned coal, you can check with your landlord or the previous owner. However, if the mechanism for feeding the oil to the burner is outside the combustion space or furnace, the system was originally a coal-burning unit, or if not a coal burner, its boiler was substantially the same as one designed and intended originally for coal burning. This will hold true for both gun and pot types of oil burners. If the burner is of the rotary type, nearly all the mechanism will be inside the furnace, and the most practicable way for the layman to determine whether the unit was converted from coal-burning is to take the name, make, and number of the boiler or furnace and check with the local heating contractors. It has been estimated that 70% of the domestic oil burners are conversion units attached to boilers

which originally burned coal or were the same in design as coal-burning boilers; thus conversion of a considerable majority of oil-burning units back to coal-burning is relatively simple, particularly if the grates and other parts removed at the original conversion have been saved.

2. *Enclosed Units.* These are usually a standard type of boiler and a conversion burner completely enclosed by a metal jacket. Most of these can be converted to coal provided the fire door through which the coal is to be fed is large enough.

3. *Boiler-Burner Units.* In these the burner is built in as an integral part of the boiler. (The *General Electric* [G. E.] is a typical example.) These cannot be converted to coal.

Assuming that your heating system is of the type that can readily be converted to coal-burning, the following procedure recommended by the Anthracite Industries Laboratory, Primos, Delaware Co., Pennsylvania, should be followed:

1. Make a thorough search to see whether the original grates are on hand. If so, have them put back under the boiler by your local heating contractor or plumber.

2. If the grates are missing, have the boiler inspected to see that the lugs or other grate supports are intact and have not been removed in the process of installing the oil-burning equipment. If the grate supports are in place, proper grates can be ordered from the original manufacturer by the local plumber or heating supply house.

3. If lugs were not provided or have been removed, a special grate can be obtained through the nearest dealer or sales agent of the following companies:

D. L. & W. Coal Co., 120 B'way,
New York City

Hudson Coal Company, Scranton,
Pa.

Lehigh Navigation Coal Co., Fidelity Philadelphia Trust Bldg.,
Philadelphia

Dieter Foundry, Cherryville, Pa.
Hershey Machine & Foundry Co.,
Manheim, Pa.

These grates are available in two models: (a) For round boilers, 19" to 25" in diameter, at a consumer price of approximately \$1 per inch of grate diameter (plus an installation charge); (b) For rectangular or sectional boilers in all standard sizes at a consumer price of approximately \$12 per square foot of grate area.

* * *

There are some cases in which an alternative method for converting to coal can be employed, but for lack of experience with its application this method cannot be definitely recommended; it should be decided upon only after expert consideration of the particular boiler installation for which it is being considered. The method involves raising the boiler on jacks about a half inch, which can often be done without removing or altering piping arrangements, if the physical arrangements permit, and if it is carried out carefully and with good judgment. With the boiler jacked up in this way, slide the old base out and a new one, complete with grates, into position—the new base having been purchased beforehand, for the purpose, from the manufacturer of the boiler. The Fitzgibbons Boiler Company is one of the manufacturers offering such complete base assemblies for their own make of boilers, in this case the *Fitzgibbons 400 Series, Oil Eighty Automatic*, and the *R-Z-U Junior* boilers. Of course, such a base should not in any case be ordered until a well-qualified heating contractor or heating engineer has examined the layout closely and determined for a certainty whether the method described is feasible in the given case, having in mind ceiling clearances, gradients, stiffness and support of runs of piping, etc.

Consumers who desire professional advice on their specific problems for converting from coal to oil should write to the

American Society of Heating and Ventilating Engineers, 51 Madison Avenue, New York City. Present information is that this organization plans to furnish simple aid in such cases for a \$2 to \$10 fee, after a questionnaire (in some cases an inspection).

Cost of Conversion

As in every other field where there is a sudden public demand, racketeering has already appeared. One case brought to CR's attention is typical of what is liable to happen. An estimate of \$225 was given by a plumber for a certain conversion, with the explanation that a new boiler was required. When the same plant was examined by a competent heating engineer, he found the boiler to be in good condition, by no means needing replacement, and only grates and an ashpit door necessary to make a satisfactory conversion at a total cost, including labor, of not over \$55. The cost of conversion will, of course, vary with different installations, and an installation which may look simple to the layman may be expensive and difficult when the problem is appraised by an expert. However, in general the cost should not exceed \$15 to \$20 for labor, plus cost of materials. One contractor who has made about 70 conversions, has charged on the average around \$65, which might be taken to be a reasonable average figure for the whole job.

Coal Storage

In converting from oil to coal, the fact that coal storage space must be provided should not be forgotten, and any problems that may arise in this connection should be taken into account in estimating the cost of conversion. In some houses, the coal bin will have been left intact and, except in instances where the oil tank has been installed in the coal bin, there will be no problem. If the oil tank is in the coal bin, it can either be removed or boarded up. If the latter is done, the capacity of

the coal bin will be reduced. The oil supply pipes must be removed and the holes covered with threaded pipe-caps to prevent entrance of coal and dirt. Those whose available cellar space is taken up by a home workshop or games room will either have to sacrifice them or build a coal bin outside of the house, and carry the coal in as required. Roofing-over an outdoor bin is usually not necessary for chestnut and pea coal but a roof or cover should be provided for buckwheat and rice coal.

Conservation of Fuel

Whether oil or coal is burned, conserving fuel is everyone's patriotic duty at this time, and there are many ways in which this can be done. In addition to the suggestions given in the 1942-1943 ANNUAL CUMULATIVE BULLETIN, cols. 287-288, the following are recommended.

Attic floors should be insulated with mineral wool or similar material. Storm sash, storm doors, and weather stripping should be fitted or applied to all places where there are air leaks, and all unnecessary openings should be closed up. If storm doors and windows do not fit properly, see that the necessary refitting and plugging of cracks is done. Flues of open fireplaces must be closed off when the fireplace is not in use. The heat should be turned off from unused bedrooms, and the doors sealed underneath to prevent the escape of heat. Do not attempt to heat sunporches. Keep all equipment clean and in correct adjustment.

One of the most important means of saving fuel is in reducing the temperature commonly maintained in American homes, and especially in those rooms that are occupied only part of the time. Learn to use the radiator valves and to shut heat off promptly when it is no longer needed. Have accurate thermometers in unheated rooms to avoid danger of freezing up of radiator or piping.

Foot Socks

If You Are Going Without Stockings

WHAT WILL the women wear for stockings now that stocks of silk and nylon are pretty well exhausted? Cotton stockings are apparently not the answer, for it has turned out to be impossible to make cotton popular. Rayon is the fiber now being currently featured extensively. Although it is preferable in appearance to cotton, it does not wear well, and hence stocking bills are high. During the summer months, an increasing number of women have gone barelegged and have used one of the many leg preparations to simulate the tint of silk stockings.

There are three or four types of these leg preparations. Helena Rubinstein's *Legstick*, for example, is essentially a grease paint and goes on rather smoothly over the leg when cold cream has first been rubbed in. A number of cosmetic houses, including Elizabeth Arden, Tone, and others, put out a liquid leg-dye which tints the skin. There are also any number of the liquid powder type mixtures sold for leg make-up, of which the best known is probably Miner's *Liquid Make-Up for the Legs*. Then there is a greaseless cream type, *Jar of Stockings*, marketed by Irene Blake, and *Zip Leg-Lure* distributed by Jordeau, Inc.

All of these preparations require considerable practice in applying to obtain satisfactory results. The hair must be removed from the legs before application, to achieve a

really smooth effect, and the make-up must be applied with care and an experienced hand in order to avoid the look of having stepped knee-deep into a wet clay bank. Most of these preparations rub off on slips and hems. It is possible, however, that if the demand for leg make-up continues, manufacturers will develop a really satisfactory product.

If you are going barelegged, however, you need something on your feet to prevent the shoe from rubbing unpleasantly, and for this purpose there is nothing so satisfactory as a cotton foot sock that fits inside the shoe and is invisible.

Foot socks are made of either of the two fibers which are available for civilian production at present—rayon and cotton or a combination of both. A general understanding of the comparative properties of these two fibers will provide some general guidance in making a wise purchase. Cotton is stronger when wet than rayon and it launders easily. Tests made by Consumers' Research indicated that foot socks of cotton were, on the whole, more resistant to abrasion, and therefore will likely wear longer than those made of rayon.

Five brands of the new knitted-fabric foot socks were tested by Consumers' Research for resistance to abrasion and their ability to maintain fit after laundering. All the samples tested contained a small elastic banding around the top

to keep the sock from slipping under the heel. Some wearers have reported that this constricting edge is uncomfortable, particularly when the shoe, inside which the sock is worn, is somewhat tight. No satisfactory substitute for the presently used method and construction to keep the sock in place has, however, been discovered, though the heel reinforcement found in *Peds* also keeps the sock from slipping.

Ratings are cr42.

A. Recommended

Peds (Richard Paul, Inc., Wilmington, Del., and Los Angeles, Calif.; Sears-Roebuck's No. 25—5316) 24c plus postage. Cotton. Reinforced heel. Seam running full length of foot could prove uncomfortable. Resistance to abrasion best of 5 brands in test. Shrinkage average. "Guaranteed by Good Housekeeping as advertised therein." 2

B. Intermediate

Boot-eez (Sold by S. S. Kresge stores) 20c. Cotton. Resistance to abrasion average. Shrinkage average. 1

Footlets (J. W. Landenberger, 385 Fifth Ave., New York City; sold by Gimbel Bros., Inc., New York City) 19c. Cotton. Resistance to abrasion average. Shrinkage average. ¶The rayon-reinforced-with-lisle type put out by this same company and priced at 50c a pair were not included in the test, but one observing user reported that holes appeared in the toes of one pair after only three wearings. She also noted that the rayon and cotton *Footlets* had a somewhat harsh feel on the foot. 1

Forfeet (Sold by H. L. Green stores) 20c. Cotton. Seam running full length of foot could prove uncomfortable. Resistance to abrasion average. Fit was improved after washing. 1

C. Not Recommended

Solettes (Sold by McCrory Stores Corp.) 25c. Rayon. Resistance to abrasion poorest of brands tested. Washed sample stretched. Did not fit well after washing. 2

Paints for the Household in Wartime

THE DISRUPTION OF THE SUPPLY of raw materials for paint began long before the attack on Pearl Harbor. On the whole the effect on paints available at retail has been less drastic than was at first feared. Stocks of paints on hand¹ in wholesale and retail establishments were greater, no doubt, than had been supposed, and consumption has been reduced by the curtailment of new building and by consumers' retrenchments in expenditures. As a result of these circumstances, there have not been the sweeping changes in house paints and wall paints that seemed imminent a year or so ago, although there has been much readjusting of formulas. On the other hand, changes of a serious nature have been made in the finishes applied on manufactured articles sold to consumers, such as furniture and household equipment.

Formula Labeling

Perhaps the most serious aspect of the current changing of formulas is the possibility that the changes are not always being revealed by the formulas as printed on the labels of paints sold to the public. Prior to the start of the defense program there had been notable progress in the paint industry in the growing practice of printing dependable formulas on the labels of its products. When manufacturers are changing their formulas frequently, there are practical difficulties in keeping their formula statements accurate, for they usually have large stocks of labels printed well in advance of use. Some manufacturers have utilized this as an excuse for discontinuing formula labels and others

have altered the composition of the paint without bothering to change the label. (The proper way to correct a stock of printed labels when a change in formula is made is to print the new formula on a small sticker to be pasted over the old formula.)



Purchase only paint having detailed information showing its composition on the label.

In every case where it is possible, the consumer should purchase only paints which give a statement of the formula on the label. Where a brand that previously showed a formula label does not do so now, the consumer should let the manufacturer know of his disapproval of the present practice. Consumers who let their continued interest in formula labels be effectively known to paint manufacturers and distributors will help to keep the trade from becoming careless about the use of formulas or permitting them to become an inaccurate statement of the actual composition of the paint, as manufacturing processes and ingredients are changed.

Consumers interested in learning how to read paint formulas understandingly can now find

guidance in the recently published Technical Bulletin No. 804 entitled "Classification of House and Barn Paints as Recommended by the United States Department of Agriculture," obtainable for 10 cents from the Superintendent of Documents, Washington, D. C. Although written for technical readers, consumers willing to study the pamphlet carefully will find an explanation of the several ways in which paint formulas are expressed on labels, lists of the pigments and liquids commonly used in paints, grading rules for the six grades of house and barn paints, and a discussion of the many ambiguous names and practices often found in label formulas. Paint formulas in which all of the ingredients are named clearly and in which none of the ambiguities listed in the bulletin occur can generally be accepted as truthful. For those patient enough to make the necessary calculations the bulletin shows how different formulas can be classified and graded.

Fast-Drying Paints or Lacquers Unavailable

When present stocks are exhausted it will no longer be possible to buy the quick-drying varnishes and enamels of the "2-hour" and "4-hour" varieties. Lacquers likewise may be unavailable. The quick-drying products are made with tung oil and synthetic resins. Nearly all the tung oil came from China, and the stocks on hand in the United States are reserved for finishes for war equipment. The chief substitutes for tung oil are oiticica oil and dehydrated castor oil, which come from Brazil and will also be needed largely for war production plants. Although the production of synthetic resins has been greatly expanded, they are needed for so many war purposes that none of the more desirable ones can

¹ Subscribers who find that their dealers still have stocks of paints manufactured before war conditions brought about changes in formulas and who do not have CR's previous BULLETINS on Paints and Painting will probably find it worth while to obtain the bound set of tear sheets on this subject (giving many listings by brand) offered for 50c. (See col. 382 of 1942-1943 ACB.)

be used in civilian products. Many of the necessary ingredients of lacquers are required in enormous quantities for the production of certain munitions.

The quick-drying products, however, are comparatively unimportant items among household paints. CR has always discouraged their use for any of the larger painting jobs about the house such as outside surfaces and interior walls and trim. Their principal place has been for the occasional painting of small pieces of furniture or equipment that had to be put back into service quickly. The temporary withdrawal from the market of quick-drying paints, lacquers, and enamels should be no great loss to householders, though it does present serious production problems to manufacturers of household furnishings whose factory methods have been geared to the quick-drying finishes.

Sizes of Packages and Number of Colors Restricted

Because of the shortage of tin and the enormous demand for steel for war production, tinplate may no longer be used for paint cans, and the amount of terne-plate (sheet steel plated with an alloy of lead and tin) and of steel is restricted. For that reason most paint products may now be put up only in 1-quart and 1-gallon cans and in 5-gallon pails and drums. Non-metallic containers are already being used by some manufacturers. Wooden pails are being used for larger sizes and glass jars and fiber containers for smaller sizes. In addition, the number of colors in which paints can be sold is limited, though each manufacturer may offer whatever colors he chooses as long as the number of colors is within the prescribed limit.

For small paint jobs requiring less than 1 quart of paint consumers must now buy more than they need. To avoid wasting paint, either the small paint jobs

must be allowed to wait until there are enough of them to require a quart of paint or, better, provision must be made for storing leftover paint for future use.

Home Storage of Paint

Few consumers give any thought to the proper storage of paint until they take a can which has been opened and partly used, from the shelf in the garage or basement and find that it has so deteriorated as to be unusable. There are two essential problems in the storing of paint: First, to protect against evaporation of volatile thinners; and second, against oxidation. The container must be airtight and as nearly full as possible. If less than half of the paint has been used, what remains can be kept in the original container. Simply wipe the groove in the top of the can free from any paint that has gotten into it, replace the friction top, and press it into the groove *tightly*. If half or more of the paint has been used there will be too much air left in the original container and the rest of the paint should be transferred to a vessel that will be more nearly filled. A well-cleaned old paint can will do if the top still forms an airtight fit. A very good storage vessel is one of the common types of glass jars in which mayonnaise, pickles, and similar products are sold, which have a wide mouth and a threaded cap sealing on a paraffined or enameled paper insert. A rubber sealing ring such as is used on a fruit jar is not satisfactory. To be sure of being able to open the jar readily, do not leave paint in the grooves of a screw cap or neck of the jar. Label the container carefully and fully so that you will know later what is in it. Then put it away in a cool place. Do not shake it while it is in storage nor upon opening the container for future use. When needed again, open the container without shaking the contents. If there is a solid scum or skin over the top of the paint, cut this away from the

sides of the container and lift it out in one piece. Then stir the rest of the paint thoroughly. If the paint is a trifle thick a small amount of turpentine or mineral spirits may be added to bring back the proper consistency. If some skin that could not be removed is present, strain through cheesecloth or an old tea- or vegetable-strainer. If the contents have become very thick or lumpy the container probably was not airtight and the paint may no longer be suitable for use except on rough work.

Home Tinting for Greater Variety of Colors

The number of colors now available, though smaller than in the past, still affords ample variety for most purposes. Those who have been accustomed to choosing the more unusual tints and shades will find that they are now missing and such consumers must now fall in line with the popular choice, or learn to mix their own colors.

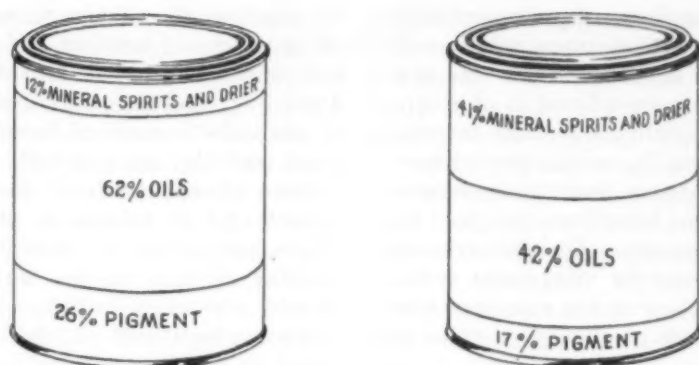
Nearly all of the lighter colors are made by tinting white paint. It is not difficult to make attractive colors by mixing small amounts of colors-in-oil with white paint, yet matching colors closely or exactly is an art requiring much skill and experience. Practical help for those who wish to make their own tints can be found in pamphlets that can be had on application to the National Lead Company (111 Broadway, N.Y.C.) and the Eagle-Picher Lead Company (1941 Temple Bar Bldg., Cincinnati). The advice of a paint dealer who is a master painter may also be very useful. Some dealers will tint paint to the desired color for a small charge.

Remember the following rules: Tint enough paint to complete the job before starting work, because it will be hard to make exactly the same tint again if you run out. Work in good daylight, not in artificial light or in a dark corner. Choose simple tints that can be made with one

or at most two tinting colors. First stir the white paint thoroughly using a paddle or spatula with a wide blade and making sure that all pigment has been scraped from the bottom and sides of the container. Add very small portions of color at a time by taking the color on a smaller paddle or spatula and rubbing it into the white paint on the large paddle. Then stir it into the white paint until the color is uniform throughout and no more streaks appear while stirring. Continue adding small amounts of color in the same way until the desired depth of color has been obtained. Try to stop a little short of the chosen color rather than to overrun it. If the paint is for a large area, such as the wall of a room, remember that colors seem stronger on large areas than they do on the paddle or on small test surfaces. If on brushing out the tinted paint, streaks of color (due to clumps of unmixed pigment) appear, strain the paint through cheesecloth or an old tea- or vegetable-strainer. Save the unused color-in-oil for future use in the manner already described for storing paint.

Outside House Paint

The supply of linseed oil remains reasonably adequate although some uncertainty is felt because of possible large requirements of it in the manufacture of glycerol (glycerine) and of substitutes for rubber. This year's domestic crop of flax (from which linseed oil is obtained) originally estimated as the largest ever produced in the United States, is now seriously threatened with blight because of unfavorable weather. If linseed oil becomes scarce, many paints will be made with a larger proportion of volatile thinner and some bodied¹ (cooked) linseed oil as an oil-conserving measure. Such paints will be more or less "enam-



The above diagrams show the proportions by volume of the fundamental ingredients, pigment and oil, and mineral spirits plus drier, in a typical high- and low-grade paint. Under the United States Department of Agriculture classification procedures, the paint at the left would be Grade 1; the paint at the right would be Grade 5, or next to the lowest grade. The mineral spirits, which comprise the bulk of the material at the top of each can, represents the part which is completely lost to the user of the paint, since it evaporates and is entirely gone when the paint is dry. The pigment and oils, of course, represent effective or useful materials. The pigment must meet certain requirements as to proportion of opaque to total pigment, depending on the grade of the paint. The drier acts to hasten the oxidation and hardening of the oil vehicle or "drying oil."

elized" and therefore somewhat more difficult to apply evenly. In fact the anticipated saving of oil may not be realized because many users may take a larger volume of paint to cover the required area.

An earlier shortage of white pigments has been greatly relieved by increased production, the development of a large titanium mine in New York State, and the importation of lead ores from Mexico. The types of titanium dioxide that resist chalking are reserved largely for war purposes, hence light colored paints of Titanium-Lead-Zinc (TLZ) types will be inclined to fade badly and in many brands are being changed to Lead-Zinc (LZ) paints. The amount of zinc oxide available for paint is somewhat restricted and some manufacturers have therefore reduced the proportion used in their paints. White lead remains in a relatively "easy" position.

So far, the threatened shortages of white pigments have affected government purchases more seriously than they have trade-brand paints sold to the public. Federal Specifications TT-P-36a, which has long served

as a sort of informal minimum standard of quality for Lead-Zinc (LZ) paints, TT-P-101a for Titanium-Zinc (TZ) and Titanium-Lead-Zinc (TLZ) paint, and TT-P-156 for white lead paint in prepared form, were for a time replaced by Emergency Specification E-TT-P-101a, which calls for an inexpensive paint of TLZ type that is very low in white lead and zinc oxide and very high in "extending pigments" (pigments used to minimize the use of the more valuable and effective lead and zinc compounds). A similar paint known as the "cantonment formula" has been widely used on Army barracks. More recently these three specifications have been restored as far as the pigment ingredients are concerned, but the vehicle has been changed by substituting bodied linseed oil and thinner for much of the raw linseed oil. These paints serve government purposes reasonably well, on account of the tendency at government establishments to paint oftener than necessary.

After the emergency is over some paint manufacturers may use the emergency specifications to persuade consumers to accept

¹ Not the same as boiled linseed oil.

such products as paints of high quality. Consumers will do well to bear in mind, in case the new products are offered as of exceptional quality and value because now used by certain government departments, that these new compositions have been accepted by government authorities as means of conserving vital paint materials; they do not represent new standards of quality or value in paints.

The paint industry's slogan for the war emergency is "Paint Protects America," and the interpretation given by the advertising would lead one to suppose that buildings will go to wrack and ruin promptly if the frequency of painting customary in peace times is not adhered to. Needless to say, the adman's use of this fear motive will be unjustified by the facts of the situation, and we hope the information in this article may prevent at least some paint advertisers from adopting this misleading appeal in their advertising copy. The truth is that painting may be neglected for many years without serious damage to frame houses. The principal disadvantage of painting neglect lies in the fact that many kinds of paint break up in an unsightly manner and leave a surface that is more difficult and more expensive to repaint satisfactorily later on. In some cases it may later become necessary to remove all of the old coating before repainting, but if the money saved by deferring the painting remains available, even this added expense may not be unreasonable. Do not let the slogan deceive you. If you cannot paint and buy War Bonds too, buy the Bonds and let the painting wait.

Many house-owners have been painting too frequently and will actually benefit by deferring painting for two or three years. Houses that have been painted 3 or 4 times within the past 10 years have too much paint on them and should be given time

for much of the coating to wear off in wind and weather. If the last painting was done less than 4 years ago and the paint is dirty or the color somewhat faded, a good washing, using a little trisodium phosphate (not over 1 teaspoonful of trisodium phosphate per gallon of water) or similar cleaner in the water, should restore a bright, clean surface which will not become soiled so rapidly as it did when the paint coating was younger.

Those whose houses have always been painted with pure white lead paint now find themselves in the happiest position. On lead-painted houses, repainting can be postponed for several years beyond the normal schedule of 4 to 5 years without fear that the coating will break up quickly and leave a difficult condition to deal with later on. On the other hand if a repainting job is due and it is convenient to carry it out, pure white lead paint is still generally available and there has been no tampering with its composition. The wise consumer will not let a dealer persuade him to accept some other kind of paint by a claim that white lead is restricted or unavailable.

Those who have been using paints which contain not one but several pigments need to consider their painting requirements more carefully. Normally, repainting should be done every 4 to 5 years. After 3 or 4 paintings, if a paint high in white lead has been used each time, it is often safe to let several extra years elapse before the next painting. If a close examination of the coating when it is 4 years old shows a well developed pattern of fine checking, that is, an interwoven network of fine breaks in the surface of the paint coating, the delay may safely be permitted. If at the same time there is little or no conspicuous cracking with the paint curling upward at the edges of the cracks and little or no falling away of

flakes of paint leaving patches of wood bare, there need be no hurry about repainting. On the other hand if there is no development of fine checking but there is much cracking with the paint curling away from the wood at the edges of the cracks, further postponement of painting involves serious risk that there will be difficulty in repainting the surface acceptably later on. Cracking with curling is less dangerous if it is accompanied by a well developed pattern of fine checking and if any pieces of paint that seem about to come loose are very small, say less than $\frac{1}{2}$ inch long. In the last case it would be wise to repaint now because the new coating will be smoother than it would be if done later on, but durable repainting can still be done after another year or so have gone by.

When repainting is done the safe rule is to use paint of the same or nearly the same composition as that used the last time. Only on the judgment of a real (and unbiased) expert is the homeowner justified in risking a deviation from this rule.

Interior Paints

The wartime shortages have compelled more extensive changing of interior wall paints and enamels than of outside paints, but the changes may not be made evident by the label formulas because they have taken place largely in the drying oils and resins, whereas the specific nature of these is not revealed, as a rule, on the label. Tung oil, phenolic resins, and alkyd resins have had to be replaced by materials of less strategic character, chiefly linseed oil and resins made from ordinary rosin from pine trees or resins from petroleum or coal tar. It has also been necessary to reduce the content of opaque white pigments in some interior paints and enamels, and in order to maintain good hiding power certain other changes may be made

that tend to reduce the amount of washing the paints will stand. On the whole, however, the war-time interior paints should prove pretty nearly as serviceable as the former paints. The slower drying finds compensation in greater ease of application, and likewise in better stability (keeping qualities) when part of the paint is stored for future use.

There is an increased interest in water paints for interior use. Casein paints and calcimine sold in powder form to be mixed with water are free from the restrictions imposed by shortage of tin and steel for containers. On the other hand the water paints sold in paste form can no longer be packed in metal containers but probably will be made available in glass containers for small sizes and in wood for large sizes. Many of the casein paints in paste form now contain synthetic resins that improve both the washability and the ease of application. Some of the newer water paints made with synthetic resins contain little or no casein.

Use of the water paints instead of oil paints wherever practicable will contribute to the war effort by reducing the consumption of metal containers and of such paint materials as the drying oils, resins, and opaque white pigments. The water paints that contain resins use less of them than the oil paints and in addition the water paints take less white pigment to obtain good hiding power.

For previously unpainted walls or ceilings of plaster, fiberboard, or wallpaper (provided that it is firmly adherent everywhere) or for such surfaces that have previously been decorated with water paints, these products can be recommended. In attics and dry basements they may be used also on rough woodwork, concrete, or brickwork, but not on concrete floors. The latter can be properly and durably painted only when perfectly and permanently dry, and in any case require good

floor enamel. Do not use water paints in basements that may be damp at times, because they may mildew and then give off objectionable odors. The water paints likewise are not recommended for painting smooth woodwork, such as doors, trim, and window sash, especially where the woodwork is frequently touched by hands. Perspiration from the hands penetrates into water paints too deeply to be washed off easily. Many manufacturers of water paints say that they can be applied safely over previous coatings of wall paints of the oil type. Although this has often been done with apparent success for a time, it has also given rise to many cases of chipping or flaking, leaving difficult surfaces to deal with. The safer practice, regardless of manufacturers' or salesmen's advice, is to use oil paints over previous coatings of oil paints.



Buy U. S. War

Bonds and Stamps

Brushes

Good paint brushes are now very expensive because they are made with hog bristles which were imported from Asia and are now unavailable. American hogs do not grow bristles suitable for paint brushes. If you still have good paint brushes be sure to take proper care of them. The secret of caring for a paint brush is to clean it thoroughly, immediately after each use. Rinse it several times in mineral spirits or turpentine (or other proper thinner for the product in which the brush was used, that is, alcohol when used in shellac, water when used for water paints, etc.)

until all paint has been removed, then wash it thoroughly in soap and water, wrap it in paper, and lay it away with the bristles straight, even and flat. Do not try to keep good brushes suspended in oil, turpentine, or water, and above all do not let them stand on their bristles in liquid of any kind. Do not use good brushes on rough surfaces, especially rough concrete or masonry. Use old, badly worn brushes or get cheap brushes for the purpose.

Old brushes full of hardened paint are worth salvaging if they were of good quality to begin with. Let them stand in paint and varnish remover of the organic-liquid type (volatile liquid having strong aromatic odor) long enough to become softened clear through to the heel of the bristles. This may take several days. Then clean as already described.

If you have no use for your old brushes you should turn them in to be remade into smaller brushes with shorter bristles. Most paint dealers act as collecting agents to forward old brushes to the brush manufacturers for this purpose.

At least one brush manufacturer now has a process for making synthetic bristles for paint brushes and is beginning to put the new product on the market. According to the information now available they will be much cheaper than brushes of hog bristles at present prices. For applying ordinary oil paints and enamels and water paints they will prove just as satisfactory as brushes of hog bristles, but will not stand so much abuse. In other words, special care should be taken that they are cleaned promptly after use, and not left standing in liquids for a long time. The new synthetic-bristle brushes may not prove so successful for lacquers or special paints containing certain solvents.

A Practical Way to Save Fuel and Keep the House Comfortable— Adding Insulation to Your House

MANY HOUSES already built can be made snuggler in winter by adding insulation to the attic and walls. With fuel made scarce by the war, insulation has recently taken on new importance. The advantages derived from insulating a house depend upon the characteristics of the individual house but, in very general terms, a good job of insulating the attic may be expected to reduce the cost of heating the house about one-seventh. Filling the walls with insulation may cut the fuel consumption about one-fifth, and insulating both attic and walls may cut it about one-third.

In houses that have unfloored attics, or floors of rough, loosely nailed boards, it is a fairly easy and inexpensive job to place insulation between the joists. It can be done in a few hours with unskilled labor, and the material costs only about 5 to 6 cents per square foot, say \$50 to \$60 for an attic 25 feet wide and 40 feet long. For such work, mineral fill-type insulation or expanded mica pellets, both of which come in large paper bags or cartons, are the most practical to use. The insulation is simply poured between the ceiling joists. A thickness of three inches is desirable, but where expense must be reduced, two inches or even less are worth while. Mineral wool batts are another type of insulation also easily installed. Sears, Roebuck & Co., Montgomery Ward & Co., and the Pease Woodwork Co., Blue Rock and Turrill St., Northside, Cincinnati, are among the many firms that sell these types of insulation on mail orders. There is not much to choose between brands, for the differences in insulating effectiveness are small, and selection, as a rule, can be

made on a basis of relative cost per square foot of a given thickness, including delivery to the job.

When insulation is placed in the attic of a house, it is desirable to have some ventilation above it in order to guard against condensation of moisture that might rot the structure of the house. Except in small confined spaces and in very cold climates, or above rooms such as bathrooms or laundries, perhaps, where the relative humidity is often very high, houses that are not very tightly built probably will not require the special ventilating louvers or openings sometimes installed. Experience in periods of cold weather will quickly show whether the attic space is accumulating excessive amounts of moisture likely to rot woodwork, or in extreme cases harm stored articles, or even drip through ceilings.

Adding insulation to the walls of a house already built is always more expensive than installing it in the attic, but often is economical in the long run. It may be especially desirable, of course, at the present time when every practicable step toward fuel saving will be taken by householders who can afford to increase their investment in their homes. Adding insulation in the walls does, however, increase the chances of condensation of moisture in the walls, which sometimes causes serious damage to the structure.

When the house is well insulated it is necessary that special care be taken not to allow the relative humidity inside to increase to an excessive figure. The safe limit for indoor humidity depends upon the outdoor temperature. Generally speaking, a humidity of about 40% inside, when outdoor temperature is at

30°F, should not be exceeded; with the outdoor temperature at zero, 20% humidity inside is about the safe upper limit.

Except in and adjacent to kitchens, laundries, and bathrooms, these values are not likely to be exceeded to a harmful extent unless the air is artificially humidified. If the relative humidity is likely to stay long above the safe limits in any room, its walls should be made resistant to the passage of moisture vapor. One way in which this has sometimes been done is by painting the walls with two coats of aluminum paint. Two coats form a film through which atmospheric moisture passes only very slowly.

There are other advantages of insulating a house besides the reduction afforded in heating costs. There is some improvement in comfort, due to the fact that the rooms are more uniformly heated. Resistance to the spread of fire is also increased. On the other hand, homeowners are often surprised to find that the insulation which adds extra comfort in winter turns out the other way in summer, for while the rooms do heat up more slowly as the day advances, they also give off their heat more slowly at evening. For this reason, a living or sleeping room may actually be hotter on a summer evening after insulation has been installed than before.

When considering whether to install insulation, the costs must often be balanced against future savings. Furthermore, if storm windows and doors have not already been provided, they should receive consideration. Storm windows and doors that are tight fitting are likely to cut fuel costs as much as the insulation put into the walls of the house, and

(Concluded on page 23)

Apples for Eating, Apples for Cooking

THERE WAS A TIME when apples were the chief fruit eaten in this country, almost the only fruit consumed fresh through the fall and winter months. Nearly everyone had a small orchard, or at least an apple tree in his backyard, and most people had a barrel of apples in the cellar during the winter months. As modern heating systems came into general use, and more and more people lived in big-city apartments, cool, damp cellars were no longer available for food storage. Apples kept better in a cool cellar with a dirt floor, and the barrel or bushel-basketful of apples will rot very quickly in the average basement of today.

From time to time, apple merchants are wont to lament the fact that the housewife does not buy as many apples as she used to. Few people, it appears, can identify more than a small number of varieties. This lack of acquaintance with different types of apples and their flavor may account in part for the decrease in their popularity. Some apples are particularly suitable for eating raw; others are better cooked in various ways; and some modern developments in the apple line are fit only for table decorations, gorgeous to look at, but devoid of flavor.

Color and Flavor

Because it has been found that apples with a good red color bring a higher price than those which are not so highly colored or are green, there has been some experimental work done to increase the pigment in the fruit by use of the mercury vapor arc in Uviol glass. Although a green-colored McIntosh may taste exactly the same as a red one, the more highly colored fruit may bring as much as \$1 more per bushel in the retail market. This affords an interesting example of the way in which consumers are often led to misjudge flavor or

value by giving weight to non-essential factors.

Food Values

The food values of apples are not at first apparent from a study of their chemical composition. Their moisture content is high; fat and protein are present in insignificant amounts. The carbohydrate content of fresh apples is small compared with that of cereal foods, although this may be a factor in favor of including them in diets requiring a low amount of carbohydrates as, for example, in reducing diets and some diabetic diets. They contain small amounts of minerals, such as calcium, phosphorus, sulphur, iron, and several others. So far as digestibility is concerned, they have been found to agree fairly well with the average person. In a study of 600 healthy college women, only 4% noted any discomfort from eating apples. In another group of 400 healthy men and women, citrus fruits affected 2% unfavorably, and apples only 1.4%.

Vitamin Content

The recent interest in vitamins has led to a study of the vitamin content of apples. Fruits are not an important source of vitamin A as compared with fish oils, dairy products, and green vegetables, and apples are about equal to other fruits in this respect. Studies in vitamin C, however, have shown that certain apples contain twice or three times as much vitamin C as others. Furthermore, in the Baldwin, for example, there is more vitamin C in the skin and the flesh just beneath it than in the flesh near the core. The peel of the McIntosh apple has also been found to be richer in the vitamin than the flesh, although on the whole the McIntosh is a poor source of this vitamin. The unpeeled Golden Delicious apple contains twice as much vitamin

C as the flesh alone, according to a study on "The Nutritive Value of Apples," by E. N. Todhunter, Agricultural Experiment Station, State College of Washington, Pullman, Washington.

Cooking causes considerable loss in the vitamin C content. Applesauce made from one variety was found to lose more than one-half of the vitamin content present in the fresh apple. Canned applesauce made from Baldwin apples was a poor source of vitamin C, but on the other hand, Bramley's Seedling apples baked at 115°C for 50 minutes lost very little vitamin C, according to the State College of Washington study.

Storage under certain conditions is also a factor in diminishing vitamin C which may be present in the fresh apple. Storage at 32°F prevents or reduces loss of vitamin C.

Therapeutic Use

Apples have a number of therapeutic uses. A raw apple diet is beneficial in some cases of intestinal intoxication. Some researchers have suggested that the apple pulp not only absorbs products of bacterial invasion, but may also absorb other poisons from the bowels. The pectin present may constitute the important detoxifying substance. The fiber (which constitutes about 1% of the total weight of an apple) is considered to be of some help in maintaining bowel regularity. Apples consumed in sufficient number can provide enough vitamin C to protect the average person from scurvy. The number required to satisfy the average person's requirement for vitamin C varies from 2 per day in the case of the Winesap, Rome Beauty, and Spitzenberg, to 6 Jonathan or 6 Delicious apples, when the latter was stored for 6 months at 45°F. From the point of view of vitamin value, the

medium or small-sized apple is preferable to a large one.

Danger from Spray Residues

Although the greater vitamin values are in the peel, it is somewhat doubtful whether the peel should be eaten in the interests of health, because of the ever-present dangers from arsenic, lead, and fluorine spray residues. If apples positively known to be unsprayed can be secured and the consumer tolerates roughage well, there may be no objection to eating of the peel, if it is well chewed. On the other hand, the dangers to health of lead and arsenic spray are fairly well known at the present time, and it is quite likely that the dangers involved are considerably great-

er than the benefits to be secured from the vitamin content of the peel, in any case where there can be no real certainty as to the "spray history" of the fruit.

Know Your Apples

Growers consider that apples are ready to pick when they are well colored and the green under-color has turned to a lemon yellow. If apples are picked when overripe, they do not keep well.

Apples are graded as "U. S. Fancy," "U. S. No. 1," "U. S. Commercial," "U. S. No. 1 Early," "U. S. Utility," "U. S. Utility Early," and several other grades or combinations of grades. The grade requirements are based on the maturity of the fruit, appearance, freedom from decay

and other damage. Since consumers do buy chiefly on the basis of color and appearance, these standards would seem to conform to the present marketing demands. On the other hand, the really important factor, which is the eatability of the apple, is entirely overlooked.

Possibly a greater effort to educate consumers to the different flavors and uses of various types of apples would bring about greater consumption. Tart or slightly acid fruit, for example, is best for general cooking purposes. Apples for baking should be firm enough to hold their shape and should cook tender rapidly, and those for applesauce should be of a variety that cooks quickly.

CHARACTERISTICS OF WELL-KNOWN VARIETIES*

Variety	Main Market Season	Color	Flavor and Texture	Comments
<i>Gravenstein</i>	July-September	Yellow with red stripes. Attractive color effect is caused by greenish to orange-yellow colored skin being overlaid with broken stripes of light or dark red.	Juicy, slightly acid; firm, crisp, aromatic.	Excellent for eating raw. Recommended for sauce and pies. Quality good to very good.
<i>Oldenburg</i> (<i>Duchess of Oldenburg</i>)	July-October	Red striped. Attractive color effect caused by pale-yellow or greenish-yellow skin being almost covered with irregular splotches and stripes of bright red mottled and shaded with crimson.	Juicy, too acid for eating raw; rather firm, crisp, tender.	Highly recommended for sauce and pies. Quality fair to good.
<i>Maiden Blush</i>	August-November	Pale, waxy, lemon yellow with crimson cheek.	Slightly acid, moderately crisp.	Highly recommended for sauce and pies. Quality fair to good.
<i>Wealthy</i>	August-December	Bright red when fully colored. Marked with splashes and narrow stripes of red over a pale-yellow or greenish skin.	Very juicy, crisp.	Excellent for eating raw. Recommended for sauce and pies. Quality good to very good.
<i>McIntosh</i>	October-January	Bright deep red, striped with carmine. Highly colored specimens become dark, almost purplish, red overspread with thin lilac bloom.	Juicy, slightly acid, becoming mild and nearly sweet when very ripe; firm, crisp, fine, aromatic.	Highly recommended for eating raw and for sauce and pies. Recommended for baking whole. Quality very good to excellent.
<i>Grimes Golden</i>	October-January	Deep clear yellow with pale-yellow or russet dots.	Moderately juicy; very firm, crisp, tender, rich, aromatic.	Highly recommended for eating raw. Recommended for sauce and pies. Quality very good to excellent.
<i>Esopus Spitzenburg</i> (<i>Spitzenburg</i>)	October-February	Bright red inconspicuously striped with a darker red which may become almost a purplish blush.	Juicy, slightly acid; firm, crisp, rather tender, aromatic.	Highly recommended for eating raw. Recommended for sauce and pies. Quality very good to excellent.

* Adapted from A Fruit and Vegetable Buying Guide for Consumers—U. S. D. A. Miscellaneous Publication No. 167, by R. G. Hill. 61 p. August 1933. Sc, from Superintendent of Documents, Washington, D. C.

CHARACTERISTICS OF WELL-KNOWN VARIETIES (Cont'd)

Variety	Main Market Season	Color	Flavor and Texture	Comments
<i>Jonathan</i>	October-February	Lively deep red. The bright yellow-colored skin is overlaid with a lively red and is striped with carmine.	Juicy, slightly acid; firm, crisp, very aromatic, highly flavored.	Excellent for eating raw. Quality very good to excellent.
<i>Rhode Island Greening</i>	October-March	Green or yellowish; sometimes has a brownish-red blush.	Juicy, slightly acid; firm, crisp, tender, rich.	Highly recommended for sauce and pies. Quality good to very good.
<i>Northwestern Greening</i>	October-March	Greenish until fully ripe.	Juicy; medium in firmness and crispness.	Highly recommended for sauce and pies. Quality fair to good.
<i>Northern Spy</i>	October-March	Bright striped red. The clear pale-yellow skin is nearly concealed with bright pinkish red, mottled and splashed with carmine, and over-spread with a thin delicate bloom.	Very juicy; rather firm, crisp, very tender, aromatic.	Highly recommended for eating raw and for sauce and pies. Quality very good to excellent.
<i>Delicious</i>	October-April	Red striped. The yellow-colored skin is covered by a light red and is striped and washed with a dark red.	Juicy, very mildly acid; firm, tender, aromatic.	Recommended for eating raw. Quality very good to excellent.
<i>Slayman Winesap (Slayman)</i>	November-April	Dull mixed red rather indistinctly striped with dull carmine. Often covered with rather conspicuous light-gray or russet dots.	Juicy, slightly acid; firm, moderately crisp, aromatic.	Excellent for eating raw. Highly recommended for sauce and pies. Quality very good to excellent.
<i>Baldwin</i>	November-April	Bright red. The light-yellow or greenish skin is blushed and mottled with bright red, indistinctly striped with carmine, and covered with a scattering of conspicuous gray or whitish dots.	Juicy, mildly acid; firm, crisp, rather tender.	Excellent for eating raw. Highly recommended for sauce and pies. Quality good to very good.
<i>Rome Beauty (Rome)</i>	November-May	Yellow mingled with red. The yellow or greenish skin is more or less mottled with bright red striped with carmine.	Juicy, mildly acid; rather crisp, moderately fine grained.	Recommended for sauce and pies. Recommended for baking whole. Quality fair to good.
<i>Ben Davis</i>	November-May	Bright deep red or red striped. The clear yellow or greenish mottled skin is mottled and washed with bright red, striped and splashed with carmine.	Moderately juicy; firm, not very crisp.	Recommended for baking whole. Quality only fair. Keeps well.
<i>Winesap</i>	January-May	Bright deep red, indistinctly striped with dark purplish red overspread with a faint bloom and marked with small scattered whitish dots.	Very juicy, slightly acid; very firm, moderately crisp.	Excellent for eating raw. Recommended for sauce and pies. Quality good to very good.
<i>Yellow Newtown (Albemarle Pippin)</i>	January-May	Greenish yellow to yellow, often showing slight brownish or brownish-pink color.	Juicy, mildly acid; firm, crisp, tender, highly aromatic.	Excellent for eating raw. Recommended for sauce and pies. Quality very good to excellent.

Adding Insulation to the House

(Continued from page 20)

almost certainly they will cost less. When the advantages and costs of the different means of making houses warmer in winter are weighed, usually it is found that the first thing to do with houses already built is to install tight-fitting storm windows and doors (especially with houses having loose-fitting sash, which allow large leakage of air); the next thing is to add insulation to the attic; and finally, if the money holds out, to have insulation in-

troduced into the walls.

On the last two jobs at least, get a number of competing bids, for firms doing this work often charge very different amounts for work of practically equivalent character. Business firms often resent having consumers "shop around" for competitive prices, but insulation, weather-stripping, and similar house-alteration jobs are in a field of services in which it is eminently advantageous to get price competition

into the picture, before an order is placed.

In case of doubt as to the responsibility of the contractor, it will be well worth the consumer's trouble to get a bank reference. Banks will usually arrange (for a small charge or sometimes without charge) to obtain up-to-date information regarding the financial responsibility, reputation, and standing in the community of a firm's officers or management.

Sweaters of the Future

Will They Be All Wool, Aralac, or Nylon?

IN TIMES OF SHORTAGE, American inventive genius is always spurred into productive channels, with results that are often of great benefit to the consumer. There has been a tremendous amount of research in the field of man-made fibers, and their combination in many different items of clothing in recent years has been further stimulated by the shutting off of silk imports and the restrictions on wool, which is largely reserved for the use of the armed forces. Rayon has for some time been manipulated to look like wool, and has also been used in combination with wool to a considerable extent.

Comparative newcomers in the field of wool substitutes are *Aralac*, a protein fiber made from the casein in skim milk, and nylon, a synthetic fiber which may be made from constituents of coal, air, and water.

In evaluating the use of these fibers for women's sweaters, it is important to consider first just what the average woman is likely to expect from a sweater. Is it warmth, appearance, convenience, or fashion? The vogue for sweaters came in before the present threatened fuel shortages, when many health experts considered that homes and offices were much too warm in winter for good health. It would appear, therefore, that sweaters are not necessarily worn as protection against the cold.

Aside from their fashionableness, it seems reasonable to assume that a sweater is regarded as a convenient blouse which does not soil so quickly as would one of cotton or rayon. As a rule, sweaters may be readily washed and do not require ironing. Whatever fiber, therefore, simu-

lates the appearance and launderability of wool, will likely find ready acceptance.

Wool

The outstanding properties of wool are its capacity to absorb and hold moisture without feeling wet. It can, for example, absorb up to 30% of its weight in moisture without feeling clammy or cold. It has also remarkable elasticity and resilience, which are important factors in resistance to wrinkling and creasing. Wool has no equal in warmth, due to its ability, when properly napped, to trap volumes of air within the fabric to act as insulation against the passage of heat from the body to the outside air.

One disadvantage of wool is the care with which it must be laundered to prevent shrinkage and matting of the fabric. It also absorbs and holds odors. At the present time it is scarce because it is needed in enormous quantities for the armed forces.

Nylon

Nylon, a synthetic material from fiber-forming polymeric amides having a protein-like chemical structure, has made its appearance in a number of forms in the past few years. Most women have tried at least one pair of nylon hose. Men have found nylon socks attractive and serviceable. So long as silk was available, there was some conservatism in consumer acceptance of the new product. The supply of nylon, however—never large in comparison with the supply of raw silk—was soon taken over for war materials, and even nylon waste used to make spun nylon is no longer available for consumer use.

The outstanding characteristics of nylon are its strength

and durability. It has low absorption and dries quickly, which in some cases is an advantage. On the other hand, the failure of its fibers to absorb the water of perspiration renders the fabric made from it uncomfortable to some.

Aralac

Protein fibers may be made from the casein in milk or from soybeans. Several foreign countries have experimented with fibers made from milk casein, but the one which is best known in this country is *Aralac*, made by a division of the National Dairy Products Corporation. *Aralac* has been used in making felt hats, and has been combined with wool for blankets, with rayon and wool for making dress material, and with wool to make a pile fabric for coats. It is processed in a long series of treatments, in the last of which it becomes soft, curly, and springy. It develops a feel and appearance similar to pure wool. It has been claimed to have the warmth, resilience, and durability of wool.

Sweaters Tested

In order to obtain comparisons of the man-made fibers with wool, three knitted sweaters were purchased for test. One was a wool cardigan from last year's stock, retailing at \$2.95. The other was new stock made of 50% *Aralac* and 50% acetate rayon, retailing at \$3.95. The third sweater was all nylon, knitted and napped to resemble wool, and was sold at retail at \$2.98. All three were knit with the customary stockinette stitch.

In appearance the *Aralac*-rayon and the wool sweaters were somewhat similar. Both had a fuzzy nap and felt wooly to the touch, although the sweater containing *Aralac* had

a slightly rougher feel than the wool sweater. The nylon sweater had a more silky feel and its nap was not so "wooly" or crinkled in appearance.

All three of the sweater fabrics were measured for their warmth properties (thermal resistance), and on the basis of test data were rated on a scale of 100: wool cardigan, 100; *Aralac*-acetate rayon, 96; nylon, 92. The sweaters as manufactured were thus close enough together in warmth so that the average woman would consider the difference practically of no importance.

To get an idea of how the fabrics compared on a basis of equivalent weight, these figures were corrected for fabric weight, giving the following relative warmth values: wool cardigan, 100; *Aralac*-acetate rayon, 72; nylon, 99. The fact that the nylon fabric when of equal weight would be about a third warmer than the *Aralac*-rayon mixture was interesting, in view of the fact that some women have complained that nylon fabrics feel "cold." These women may be right in a sense, for the test procedure does not take account of the moisture-absorbent qualities of the fiber, but only the transmission of warmth through the fabric, and it is known that the warmth properties of a wool fabric are partly due to the great capacity of its fibers for absorbing atmospheric moisture (or perspiration) without becoming wet.

Since sweaters are given to wearing out at the elbow, abrasion or surface-wear tests were run on several samples of each sweater. Holes appeared first in the *Aralac*-rayon sweater; which was relatively non-durable, while the wool sweater stood up more than twice as well. As for the nylon sweater, it almost seemed as if it never would wear through.

After subjecting it to more than ten times the number of wear strokes required to wear a hole in the *Aralac*-rayon sweater and nearly five times as many as the number given the wool sweater, the nylon fabric was removed from the testing apparatus without a sign of wearing through.

On a bursting strength test, which tests the quality of the fiber, the yarns, and the knitting, the wool sweater fabric was the weakest of the three. The *Aralac*-rayon fabric was second best, and the nylon best—by a surprisingly large margin, for it was three times as strong as the wool sweater fabric and twice as strong as the *Aralac*-rayon fabric.

All three sweaters were laundered by a standard method. It has been suggested that sweaters should be dry-cleaned. In view of the high cost of upkeep which would be involved if this instruction were followed widely, it was felt that the average woman will likely wash her lower-priced sweaters in soap and water and will follow this procedure even when directions on the sweater call for its being dry-cleaned.

The fabric-shrinkage of the wool sweater and of the *Aralac*-rayon sweater was about the same. Both shrank approximately $2\frac{1}{2}$ inches in length and $1\frac{1}{2}$ inches in sleeve length, the shrinkage from top to bottom being larger than that in width. This must be considered a rather high amount of shrinkage, and it would likely render both sweaters unwearable if they had been purchased to fit correctly before washing. The nylon sweater showed no shrinkage at all.

The wool sweater held its good appearance but the *Aralac*-rayon sweater had a slightly matted look, while the nylon sweater showed little change

except that the fuzz, instead of being curly, straightened out and gave the appearance of long, loose fibers. Its appearance was still quite satisfactory.

All three sweaters were subjected to an accelerated fading test, equivalent to approximately thirty-two hours of June sunlight in the latitude of Washington, D.C. The fading of the blue nylon sweater was hardly noticeable. The green *Aralac*-rayon sweater faded slightly, while the blue wool sweater faded definitely.

On the whole, the nylon sweater will likely give the best service. Its acceptance will depend on the individual woman's reaction to its feel and appearance, which are slightly different from those of sweaters made from wool or from *Aralac* combined with rayon. The *Aralac*-rayon combination appears, on the basis of the present test, to be a fairly satisfactory substitute for wool sweaters in the lower-price brackets. The difference in warmth properties (assuming fabrics of equal weight) is probably not sufficiently great to be considered a disadvantage in a sweater.

A. Recommended

Jane Irwill Ladies' Pullover (Irwill Knitwear Corp., 1372 B'way, New York City) \$2.98. 100% nylon. Pastel blue.

B. Intermediate

Aralac-rayon Cardigan (Beldoch-Popper, Inc., 1410 Broadway, N.Y.C.) About \$3.95. Pastel green. This sweater would possibly warrant a C rating unless its relatively large shrinkage were allowed for by purchasing a larger size.

College Hall Cardigan, Styled by Stoneleigh (Stoneleigh Sportswear, 132 W. 36, N.Y.C.) \$2.95. 100% all wool cardigan sweater. Pastel blue. See comment on shrinkage under *Aralac*-rayon Cardigan.

Phonograph Records

By

WALTER F. GRUENINGER

REGARDLESS of the outcome of the Petrillo case, this much seems certain: record buyers will hardly notice any difference in the manufacturers' output until the turn of the year. In the popular field Decca, Columbia and Victor have already recorded nearly all the hit songs which will be published this winter. In the classical field there is a backlog of unreleased recordings ample for several years to come. Beyond that, Victor and Columbia will probably prefer to put their limited shellac into discs which net them the greatest profit—the \$1.05 classical twelve inch. If in the year ahead anyone but the 138,000 members of the American Federation of Musicians suffers by Petrillo's order which prohibits every union member's making records, it will be the popular-record fan.

ONLY Victor has discontinued manufacturing *M* sets—regular sequence—in favor of *DM* sets—automatic sequence. Since two-thirds of its customers have ordered *DM* sets in the past, Victor has simplified its production problem at the expense of the third who turn their records by hand. In those cases where a competing set is equal to or nearly as good as the Victor set, hand turners may hereafter prefer the competing set.

COLUMBIA alone includes the excise tax in its circulars listing the price of a disc; with other brands, dealers add the excise tax to the advertised list. To put all brands on the same basis, beginning this month the price shown in the record ratings will include the excise tax.

Ratings of Phonograph Records

Prices Include Excise Tax

Key: AA—highly recommended; A—recommended; B—intermediate; C—not recommended.

	Quality of Music	Inter- pre- tation	Fidelity of Recording
ORCHESTRA			
Beethoven: Symphony No. 8. NBC	A	AA	A
Symph. Orch. under Toscanini. 6 sides, Victor Set 908. \$3.68. One of Beethoven's most delightful though lesser-known symphonies which suggests Haydn and Mozart. Toscanini drives the orchestra through an exciting performance which may displease some, although I believe overall this set can be rated a hair's breadth superior to any other recording of this symphony.			
Benjamin: Overture to an Italian Comedy. Chicago Symph. under Stock.	B	AA	AA
2 sides, Victor 11-8157. \$1.05. Light music which adds little to the repertoire.			
Brahms: Hungarian Dances 1, 2, 7.	A	A	A
Indianapolis Symph. Orch. under Seitzky. 2 sides, Victor 11-8223. \$1.05. Laymen and musicians love these dances, moderately well played here.			

	Quality of Music	Inter- pre- tation	Fidelity of Recording
Corelli: Suite. Nat'l Symph. Orch. under Kindler. 2 sides, Victor 11-8111. \$1.05. Of its kind the music is outstanding, though the performance falls short of perfection.	AA	A	AA
Couperin: Overture & Allegro. St. Louis Symph. Orch. under Golschmann. 2 sides, Victor 11-8238. \$1.05. Heavy performance of inconsequential Couperin, leading French composer of his time.	B	B	AA
Elgar: Pomp & Circumstance Marches 1, 2, 3, 4. Toronto Symph. Orch. under MacMillan. 4 sides, Victor Set 911. \$2.63. Four concert marches. The most popular, No. 1, will be recognized as <i>Land of Hope and Glory</i> .	A	AA	A
Glazounov: Carnival Overture. Chicago Symph. Orch. under Stock. 2 sides, Columbia 11771. \$1.05. Seldom played, colorful overture.	A	AA	AA
Gounod: Faust—Waltzes (Part 1). Boston Pops Orch. under Fiedler. 2 sides, Victor 10-1009. 79c. Popular opera waltzes which I no longer find exciting, rather heavily played.	B	A	A
Hanson: Lament for Beowulf (5 sides) and Norton: Prologue (1 side). Eastman-Rochester Symph. Orch. and Eastman School Choir under Hanson. Victor Set 889. \$3.68. The lament is an austere choral work describing the scene of Beowulf's burial. More interesting is the savory little filler.	B	AA	A
D'Indy: Symphony on a French Mountain Air. San Francisco Symph. Orch. & Schapiro (piano) under Monteux. 6 sides, Victor Set 913. \$3.68. An engaging, seldom played work in the cyclic style of Franck. Interpretation beyond criticism.	A	AA	AA
Mendelssohn: Midsummer Night's Dream. Cleveland Orch. under Rodzinski. 8 sides, Columbia Set 504. \$4.73. Overture, Scherzo, Wedding March, Nocturne, Intermezzo. At times the music, which should be youthful and exuberant, plods along in this performance, but on the whole the set is very welcome.	A	A	AA
Ravel: Le Tombeau de Couperin. Minneapolis Symph. Orch. under Mitropoulos. 4 sides, Columbia Set X222. \$2.10. Four pieces conceived in forms common to the period of Couperin but orchestrated in modern harmonies. As a performance, slightly inferior to Victor 12320/1.	A	A	A
Schumann: Symphony No. 2. Minneapolis Symph. Orch. under Mitropoulos. 10 sides, Columbia Set 503. \$5.78. A satisfactory though not definitive performance of a glowing symphony. Tossup between this and Victor Set 448.	A	A	A
Scriabin: Etudes No. 1 & 2. Nat'l Symph. Orch. under Kindler. 2 sides, Victor 11-8150. \$1.05. Transcribed piano music which sounds better on the piano.	A	B	AA
Strauss: Salome — Salome's Dance. Cleveland Orch. under Rodzinski. 2 sides, Columbia 11781. \$1.05. This vulgar music, brilliantly performed here, fits the famous dance for which it was composed but doesn't qualify as good company.	B	AA	AA
Telemann: Suite in A Minor for Flute and Strings. Kincaid (flute) & Phila. Orch. under Ormandy. 4 sides, Victor Set 890. \$2.63. A charming composition by a contemporary of Bach.	A	AA	AA
Tschaikowsky: Symphony No. 4. NBC Symph. Orch. under Stokowski. 10 sides, Victor Set 880. \$5.78. Stokowski tampers with tempos, dynamics, proportions, electronics, etc. Overall considerably inferior to Victor Set 327.	AA	B	A

CONCERTO

Grieg: Concerto in A Minor. Rubinstein (piano). 6 sides, Victor Set 900. \$3.68. Best recording of a melodious, effective, ingratiating, Norwegian concerto popular with the layman, less highly regarded by some critics.

CHAMBER & INSTRUMENTAL

- Beethoven: Theme & Variations—in B** AA AA
F Major (Op. 34), in E Flat Major (Op. 35). Arrau (piano). 8 sides, Victor Set 892. \$4.73. Strictly for connoisseurs and likely to be none too satisfying, as a piece of music, for all of them. The performance by the Chilean, Arrau, is outstanding.
- Brahms: Intermezzo & Rhapsodies.** A AA A
Rubinstein (piano). 8 sides, Victor Set 893. \$4.73. These distinctive, introspective miniatures wear exceedingly well over the years.
- Debussy: La Cathedrale Engloutie &** A AA A
Clair de Lune. Schmitz (piano). 2 sides, Victor 11-8240. \$1.05. Two of Debussy's most familiar compositions played beautifully by an artist who specializes in modern music.
- Dohnanyi: Serenade in C Major.** Hei- A AA AA
fetz (violin) Primrose (viola) Feuermann (cello). 6 sides, Victor Set 903. \$3.68. A stunning performance of an entertaining trio which will be appreciated particularly by chamber music enthusiasts.
- Kreisler: "My Favorites."** Kreisler A AA AA
(violin). 6 sides, Victor Set 910. \$3.68. *Caprice Viennois*, *Tambourin Chinois*, *Liebesfreud*, *Liebeslied*, *La Gitana*, *Schon Rosmarin*—favorite encores for thousands of music lovers as well as for the composer who here records his unmatched, mellow interpretations.
- Ravel: Piece en Forme de Habanera &** B A AA
Gounod-Sarasate: *Faust—Fantaisie* (Waltz). Morini (violin). 2 sides, Victor 10-1011. 79c. Szigeti reveals more color in the slight Ravel *Habanera* but Morini's *Faust Fantaisie*—violin gymnastics—is electrifying.
- Strauss - Rosenthal: Carneval de** C AA B
Vienne. Rosenthal (piano). 2 sides, Victor 11-8175. \$1.05. A show-off piece which the audience expects at a Rosenthal recital. Recorded abroad about six years ago.
- Weinberger: Schwanda—Polka & Fu-** A A A
gue. Vronsky & Babin (2 pianos). Victor 11-8189. \$1.05. Catchy melody which sounds better by an orchestra, preferably on Columbia 68311.
- VOCAL
- Donevsky: Song of the Dance & Tra-** B AA B
ditional: *Russian Soldiers' Song*. Siberian Singers under Vasillieff. 2 sides, Victor 10-1000. 79c. You won't miss anything if you don't hear this.
- Donizetti: L'Elisir D'Amore—Una fur-** A AA C
tiva lagrima & **Verdi: Rigoletto—Parmi veder le lagrime.** Caruso (tenor). 2 sides, Victor 11-8112. \$1.05. Two famous operatic arias re-recorded.
- Edwards: Into the Night & Campbell-** A AA AA
Tipton: *A Spirit Flower*. Swarthout (mezzo-soprano). 2 sides, Victor 10-1001. 79c. Melodious songs beautifully sung and expertly recorded.
- Meyerbeer: Dinorah—Shadow Song.** B B A
Pons (soprano). 2 sides, Victor 11-8225. \$1.05. A coloratura "war horse" which Miss Pons sings with no distinction and Galli-Curci sings superbly, on Victor 1174.
- Rossini: The Barber of Seville.** Seven AA A AA
soloists under Bamboschek. 16 sides, Victor Set 898. \$9.18. An uncommonly fresh performance of the principal solos and ensembles from this popular opera, representing about half the score. The cast, for the most part, is composed of second string Metropolitan opera leads—Reggiani, Brown-ing, Landi, Gurney, Engelman, etc. You may wish to add the *Overture*, Victor 7255, and *A un dottor della mia sorte*, Columbia 71193, both of which offer highly recommended performances of music which does not appear in the Victor set.
- Tchaikowsky: Toi Seule & Paulin:** B B AA
Que Deviennent les Roses. Moore (soprano). 2 sides, Victor 11-8158. \$1.05. Unimportant music and singing.
- French Art Songs.** Teyte (soprano). AA AA AA
6 sides, Victor Set 895. \$2.89. Thrilling performance of six superb modern French art songs.
- Gershwin: Porgy & Bess.** Vol. 2. A A A
Duncan, Brown, Matthews, etc. 6 sides, Decca Set 283. \$2.89. This set presents tunes not included in the earlier Decca Set 145, which should be acquired first.
- Gilbert & Sullivan: Excerpts from** AA A AA
HMS Pinafore. Victor Light Opera Co. & Orch. under Cote. 8 sides, Victor Set P120. \$2.63. Most of the music from a light opera treasured since 1878.

- Kalman: Countess Maritza—Play Gyp-** A B A
sies, *Dance Gypsies & Czardas*; *Sari—Love's Own Sweet Song* & **Lehar: Paganini—Love is Like a Breeze in May.** Melton (tenor). 2 sides, Victor 11-8224. \$1.05. Viennese operetta favorites sung painfully by an "Irish tenor."
- Kern: All the Things You Are & The** A A AA
Song is You. Thomas (baritone). 2 sides, Victor 11-8110. \$1.05. A rich voice doesn't necessarily offer the best interpretation of these light numbers.

LIGHT, FOLK AND MISCELLANEOUS

- Kern: Melodies.** Decca Salon Orch. AA A A
under Horlick. 8 sides, Decca Set 232. \$2.63. *They Didn't Believe Me*, *Look for the Silver Lining*, *Oh Man River*, *Why Do I Love You*, *Make Believe*, *Yesterday*, *Smoke Gets in Your Eyes*, *Last Time I Saw Paris*—all played without frills by a small concert orchestra.
- Sousa: Marches.** Vol. 2. Decca Band A AA AA
under Colling. 8 sides, Decca Set 320. \$2.63. Spirited performance of eight little known Sousa marches.
- Strauss: Waltzes.** Horlick & His A AA A
Orch. 8 sides, Decca Set 318. \$2.63. Eight little known waltzes played in strict dance tempo.
- Deanna Durbin Souvenir Album No. 5.** AA B A
Durbin (soprano). 8 sides, Decca Set 289. \$2.63. *My Hero*, *Kiss Me Again*, *Poor Butterfly*, *Annie Laurie*, *Love's Old Sweet Song*, *Cielito Lindo*, *La Estrellita*, *When the Roses Bloom Again*. Other recorded performances are preferable.
- In a Monastery Garden.** Crawford A A A
(organ). 8 sides, Decca Set 319. \$2.63. *Bells of St. Mary's*, *Rosary*, *Lost Chord*, *Ave Maria*, etc., played with a few movie palace touches.
- The Lord is My Shepherd.** Newill A A A
(baritone). 8 sides, Decca Set 298. \$2.63. Sincere, straightforward though not definitive presentations of *The Lord's Prayer*, *Rosary*, *Lost Chord*, *Abide with Me*, etc.
- Mine Eyes Have Seen the Glory.** Helen B B AA
Hayes (actress). 4 sides, Victor Set 909. \$2.63. A thrilling but often hysterical recital of the words of four patriotic songs to which Kurt Weill has written musical settings. Of particular interest to educators. Included are the *Star-Spangled Banner*, *Battle Hymn of the Republic*, *Beat! Beat! Drums*, *America*, and *The Pledge to the Flag*.
- Old English Airs.** Gordon String Quar-AA B A
tet. 6 sides, Decca Set 270. \$2.89. *Drink to Me*, *Barbara Allen*, *Lord Randal*, *Green Sleeves*, and other fine old melodies which cry to be sung, here presented in unsatisfactory milk-and-honey string quartet arrangements.
- Rock of Ages.** Crawford (organ) Breuer AA B A
(chimes & vibraharp). 8 sides, Decca Set 285. \$2.63. *Rock of Ages*, *Faith of Our Fathers*, *Praise God*, *Evening's Shadow Falls*, *Nearer My God to Thee*, *Love Divine*, *Jesus Lover of My Soul*, *Onward Christian Soldiers*. Only for those who prefer chimes and vibraharp as a substitute for the voice.
- Rounds and Jingles.** King's Men (vocal A B A
quartet). 6 sides, Decca Set 287. \$2.63. Children know and enjoy most of these 33 tunes and many adults will find them amusing; too. The quartet brings no special distinction to the performance.
- Songs from the Veld.** Vol. 2. Marais & AA AA AA
His Bushveld Band. 8 sides, Decca Set 302. \$2.63. A delightful album of folk tunes from the South African Plains sung in English and in Afrikaans.
- Songs of Imperishable Beauty.** Parker AA C AA
(tenor), chorus, & organ. 8 sides, Victor Set P116. \$2.63. A Hollywood chorus and an unconvincing tenor ruin grand old songs.
- Spanish Through Music.** Vargas, A AA A
Jimeno, Guizar (singers). 8 sides, Victor Set P123. \$2.63. Eight melodious popular and traditional tunes sung in Spanish—*Noche de Ronda*, *La Borrichita*, *Farolito*, etc.
- Tangos.** Vol. 3. Pancho & His Orch. A AA AA
8 sides, Decca Set 307. \$2.63. Played with authoritative gusto. Best discs, 50 cents each: Decca 18295 offers *Sentimiento Gaucho* & *El Choclo* while Decca 18296 offers *Nostalgias* & *Donde Estas Corazon*.
- Fred Waring & His Glee Club.** 8 sides, A C A
Decca Set 315. \$3.15. Tons of tinsel but scarcely a pound of art in the performances of these well-known songs.

Ratings of Motion Pictures



This section aims to give critical consumers a digest of opinion from a number of reviews, ranging from the motion picture trade press to Parents' Magazine which rates motion pictures not only on their quality as entertainment, but on their suitability in various aspects for children.

It should be emphasized that the motion picture ratings which follow do not represent the judgment of a single person but are based on an analysis of the reviews appearing in some 21 different periodicals. (See June 1942 issue for list.)

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), and C (not recommended).

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

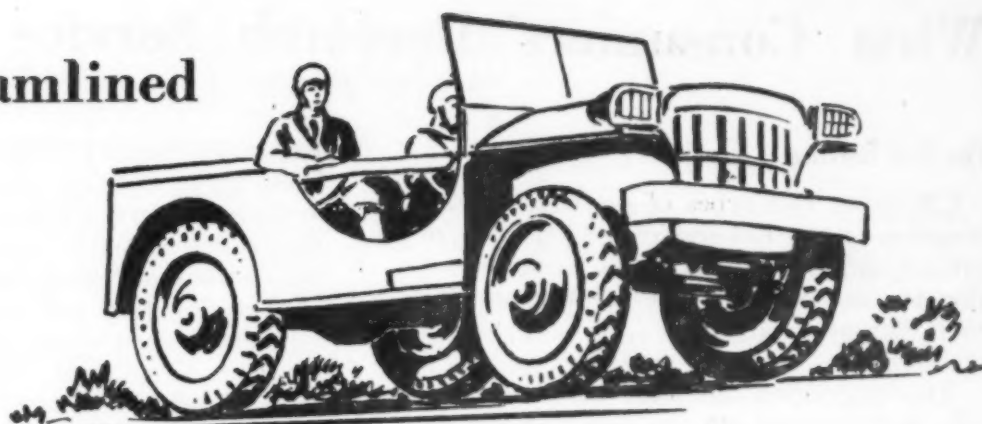
adv—adventure	mel—melodrama
biog—biography	mus—musical
car—cartoon	mys—mystery
com—comedy	noe—dramatization of a novel
cri—crime and capture of criminals	rom—romance
doc—documentary	soc—social-problem drama
dr—drama	trav—travelogue
fan—fantasy	war—dealing with the lives of people in wartime
hist—founded on historical incident	wes—western

A	B	C			
—	4	4	About Face	war-com	AYC
—	9	2	Across the Pacific	war-mel	A
—	10	6	Adventures of Martin Eden, The	dr	A
—	—	—	Affairs of Martha (see "Once Upon A Thursday")		
—	6	6	A-Haunting We Will Go	cri-com	AYC
1	8	—	Apache Trail	mus-wes	AYC
—	7	6	Are Husbands Necessary?	com	A
—	6	3	Atlantic Convoy	war-mel	AYC
—	4	2	Baby Face Morgan	cri-com	A
—	3	—	Bad Men of the Hills	mus-wes	AYC
13	2	—	Bambi	car	AYC
—	3	—	Battle Cry of China	doc	AY
—	4	3	Berlin Correspondent	war-dr	A
—	7	4	Beyond the Blue Horizon	mus-adv	A
—	4	5	Big Shot, The	cri-mel	A
—	8	1	Big Street, The	dr	A
—	2	1	Billy the Kid Trapped	wes	AYC
—	1	7	Black Dragons	war-mel	A
—	2	2	Blondie for Victory	war-com	AYC
—	6	2	Blondie's Blessed Event	com	A
—	9	2	Blue, White, and Perfect	mys	A
—	3	4	Bombs Over Burma	war-mel	A
—	—	3	Boothill Bandits	wes	AYC
—	8	7	Born to Sing	mus-com	AYC
1	11	3	Broadway	mus-mys-mel	A
—	2	10	Bullet Scars	cri-mel	A
—	1	4	Busses Roar	war-mel	A
—	13	3	Butch Minds the Baby	cri-com	A
—	2	3	Cairo	war-mus-mel	AYC
—	5	6	Calling Dr. Gillespie	dr	A
—	3	—	Call of the Canyon	mus-wes	AYC
—	1	4	Careful, Soft Shoulders	war-mel	A
—	2	4	Continental Express, The	war-mel	A
—	3	7	Corpse Vanishes, The	mys-mel	A
—	13	2	Crossroads	mys	A
—	2	1	Cyclone Kid	wes	AYC
—	—	6	Danger in the Pacific	mel	AY
—	3	5	Desperate Chance for Ellery Queen, A	mys	A
—	6	3	Desperate Journey	war-mel	AYC
—	4	—	Devil's Trail, The	mus-wes	AYC
—	3	3	Down Texas Way	wes	AY
—	6	2	Dr. Broadway	mel	A
—	2	5	Drums of the Congo	mus-war-dr-mel	A
—	2	4	Dudes Are Pretty People	wes	AYC
2	9	2	Eagle Squadron	war-mel	A
—	4	1	Enemy Agents Meet Ellery Queen	war-mel	AYC
—	2	4	Escape from Crime	cri-dr	A
—	5	3	Escape from Hong Kong	war-mel	AYC
—	5	4	Falcon Takes Over, The	mys-mel	A
—	11	5	Fingers at the Window	cri-mel	A
—	15	3	Fleet's In, The	mus-com	A
—	5	5	Flight Lieutenant	war-mel	A
—	4	7	Fly by Night	war-mel	A
—	1	4	Flying With Music	mus-com	A
1	11	2	Footlight Serenade	mus-com	A
—	1	4	Four Flights to Love	dr	A
—	4	—	Freckles Comes Home	mel	AYC
—	7	3	Friendly Enemies	war-dr	AYC
—	4	4	Frisco Lil	dr	AYC
1	6	5	Gay Sisters, The	nov	A
—	8	7	Gentleman After Dark, A	cri-mel	A
—	7	5	Ghost of Frankenstein, The	mel	A
—	5	—	Ghost Town Law	wes	AYC
—	2	2	Girl Must Live, A	mus-com	A
—	1	3	Girls' Town	com	A
—	6	12	Gold Rush, The (re-edited)	com	AYC
—	7	1	Grand Central Murder	cri-mys	A
—	11	7	Great Man's Lady, The	rom-dr	A
—	4	3	Harvard, Here I Come	com	A
—	6	2	Hay Foot	mus-war-com	AYC
—	4	2	Heart of the Rio Grande	mus-wes	AYC
—	3	5	Hello Annapolis	com	AYC
—	12	3	Hellzapoppin	mus-com	A
—	3	5	Henry and Dizzy	com	AYC
—	2	12	Her Cardboard Lover	com	A
—	2	2	Here We Go Again	com	AYC
—	4	3	Hi, Neighbor	mus-com	A
—	4	2	Highway by Night	cri-com	A
—	—	3	Hillbilly Blitzkrieg	war-com	AYC
3	12	—	Holiday Inn	mus-com	AYC
—	4	1	Home in Wyomin'	mus-wes	AYC
—	3	2	Iceland	mus-com	A
—	4	5	I Live on Danger	cri	A
—	7	8	I Married an Angel	mus-com	A
—	3	4	In Old California	wes	AYC
—	9	7	In This Our Life	nov	A
—	4	13	Invaders, The	war-dr	AYC
—	6	3	Invisible Agent	war-mel	A
—	4	1	Isle of Missing Men	mel	A
—	9	3	It Happened in Flatbush	biog	AYC
—	—	9	I Was Framed	cri-mel	A
—	2	5	Jackass Mail	com	AYC
—	2	3	Jesse James, Jr.	wes	AYC
—	3	2	Joan of Ozark	mus-war-com	AYC
—	3	3	Journey Into Fear	war-mel	A
—	6	8	Juke Girl	mel	A
—	5	7	Jungle Book, The	fan	AYC
—	3	2	Just off Broadway	cri-dr	A

(Concluded on page 31)

Not Streamlined

but



Stripped for Action!

BETWEEN a modern streamlined automobile and the Army Jeep there is a lot of difference. These fast-moving, stripped-down vehicles are strictly for hard work and practical utility, and furnish essential transportation, sometimes over very rough going.

CONSUMERS' RESEARCH BULLETIN during the coming year will be patterned after the Jeep. In these fast changing times, there will usually not be the opportunity or need to run extensive or very detailed tests which often take six months to complete, for after that period of time, some items of interest might no longer be available, and the information would be more of academic than practical value. What we plan to do is to bring you timely, down to the minute information as quickly as possible on all items which on preliminary test and examination appear worth buying. When markets are again stabilized, we shall return to our policy of detailed and complete tests, but right now we are going to move fast, like the Jeep, and get the useful, practical information to you as quickly and as efficiently as possible.

WE are also going to bring you brief items of information about bargains. Take cold cream, for example. This is a product which we know from long experience of tests and study of the literature in the field to be a safe product, except possibly for some who may be allergic to the perfume or other normally quite harmless ingredient. The brands listed in the last paragraph of *The Observation Post* are a lot for the money, and although we haven't tested them, we believe

that on economy alone they are worth calling to your attention. We hope there will be many more items from time to time of this type. Tell us of any that would especially interest you.

ANOTHER item for your consideration is that we have lost a considerable part of our staff to defense industries and to the armed forces. The rest of us are trying to carry on without additional help, because we feel that while information for consumers is extremely important, tanks, planes and guns, and other essentials for our armed forces must have priority. If we don't answer letters as promptly as you would like, just remember that probably everybody had to turn to and copy and check a manuscript for the printer to get it off on time, or take down a quick report of the results of a laboratory test, or perhaps the stenographer who would ordinarily handle your letter had to make a quick trip to Philadelphia or New York to buy items urgently required for test. We count on your sympathetic understanding and also your help which is essential if we are to carry on effectively through these difficult times, and don't forget to tell your friends to subscribe to help keep posted on consumer bargains, serviceable consumer goods, and pitfalls and dangers to avoid in making their limited purchases. Tell them how Consumers' Research saved you from wasting \$50 or more on the purchase of a nearly useless set of grates for shifting from oil to coal fuel, or kept you from buying a poor grade of paint when first-class brands were still available.

What Consumers' Research Service Includes

The Full Service

CR issues two types of service. A subscription to the full service is open only to private individuals who wish the information to guide them in making purchases for their own personal use.

This restriction has been placed on certain Bulletins and other material on the advice of able legal advisers who hold that by limiting the information in this manner, the relationship of Consumers' Research to the individual is that of doctor, lawyer, or consulting engineer giving service to his client, and advice on not recommended products may be more freely given than if the information were freely available or widely published.

A subscriber to the full service, which includes one or more confidential bulletins, signs the agreement to keep confidential for the use of himself and members of his family any BULLETINS which are marked, "The analyses of commodities, products, or merchandise appearing in this issue of the Consumers' Research Bulletin are for the sole information of Consumers' Research subscribers." (At the present time, only the ANNUAL CUMULATIVE BULLETIN is so marked.)

In addition to receiving the ANNUAL CUMULATIVE BULLETIN, a subscriber to the full service is sent monthly issues of CONSUMERS'

RESEARCH BULLETIN which supplement and bring up to date the wealth of information in the cumulative number, which is of a kind that is not available from any other source. No CONSUMERS' RESEARCH BULLETIN is issued during July and August, since that is the period when we are all hard at work on the final compilation, revision, preparation of manuscript, and proof-reading of the big 200-page annual-summary number which comes out in September of each year.

Limited Service for Schools and Libraries

The interest in consumer education has increased by leaps and bounds during the past few years. Schools and libraries have been hard pressed to find material which was current and up to date, and at the same time careful, authoritative, and trustworthy. Textbooks do not lend themselves so readily to providing the type of current, timely information demanded, as do magazines and journals.

To fill this need, Consumers' Research has arranged to provide nine monthly issues, October through June. The subscription rate is \$2 for schools and libraries and any others who may be interested. Individuals are of course permitted to subscribe to the limited or 9-month BULLETIN service. Librarians who wish to present CONSUMERS' RESEARCH BULLETIN to their boards will be gladly sent several specimen issues. Since this service is not confidential no special subscription blank is needed.

For New Subscribers to the Full Service

Consumers' Research, Inc., Washington, N. J.

☐ I enclose \$3 (Canada & foreign \$3.50) for one year's subscription to the Consumers' Research Bulletin (which includes the Annual Cumulative Bulletin and Bulletins monthly—except during July and August).

It is understood that my handling of any CR material which is marked "The analyses of commodities, products, or merchandise appearing in this issue of the Consumers' Research Bulletin are for the sole information of Consumers' Research subscribers" will be in accordance with that direction.

Name.....
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Street.....

City.....State.....

My profession or business is.....

CR-10-42

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Street.....

City.....State.....

My profession or business is.....

CR-10-42



Ratings of Motion Pictures

(Continued from page 28)

A	B	C			A	B	C		
1	9	1	Kid Glove Killer.....	cri-mel AYC	—	2	3	Secret Enemies.....	war-mel A
—	7	—	Klondike Fury.....	mel A	—	3	3	Secrets of the Lone Wolf.....	cri AY
—	7	6	Lady for a Night.....	mus-dr A	—	5	—	Seven Sweethearts.....	mus-com AYC
—	11	7	Lady Has Plans, The.....	war-com A	—	3	4	She's in the Army Now.....	war-com A
—	8	5	Lady in a Jam.....	com A	—	2	3	Shepherd of the Ozarks.....	mus-war-mel AYC
—	4	3	Lady in Distress.....	mel A	—	11	2	Ship Ahoy.....	war-mus-com A
1	8	7	Lady Is Willing, The.....	com A	—	7	4	Ships with Wings.....	war-dr AY
—	3	3	Let's Get Tough.....	war-com A	—	2	2	Silver Bullet, The.....	wes AYC
—	5	6	Little Tokyo, U. S. A.....	war-mel AYC	—	6	—	Smart Alecks.....	cri-com A
—	5	5	Loves of Edgar Allan Poe.....	dr AY	—	7	4	Somewhere I'll Find You.....	war-mel A
—	5	4	Mad Martindales, The.....	com AYC	—	2	2	Sons of the Pioneers.....	wes AYC
—	1	4	Mad Monsters, The.....	mel A	—	5	1	So's Your Aunt Emma (also titled "Meet the Mob").....	com AY
1	11	5	Magnificent Ambersons, The.....	nov A	—	6	—	SOS Coast Guard (re-edited).....	mel AYC
—	10	2	Magnificent Dope, The.....	com AYC	1	12	2	Spoilers, The.....	mel A
—	9	4	Maisie Gets Her Man.....	com A	—	3	2	Spy Ship.....	war-mel A
—	8	1	Major and the Minor, The.....	com A	—	1	2	Stagecoach Buckaroo.....	mus-wes AY
—	13	2	Male Animal, The.....	com A	—	4	—	Stardust on the Sage.....	mus-wes AYC
—	4	9	Man Who Wouldn't Die, The.....	mys A	—	3	3	Strangler, The.....	mel A
—	5	7	Mayor of 44th St.....	mus-mel AY	—	5	2	Strictly in the Groove.....	mus-com AYC
—	9	1	Meet the Stewarts.....	mel A	—	9	4	Submarine Raider.....	war-dr AYC
—	6	—	Men of San Quentin.....	mel A	—	6	4	Suicide Squadron.....	war-mel AY
—	11	2	Men of Texas.....	mel AYC	—	6	—	Sunday Punch.....	mel A
—	5	5	Mexican Spitfire Sees a Ghost.....	com A	—	4	6	Sunset on the Desert.....	mus-wes AYC
—	3	4	Mexican Spitfire's Elephant.....	com A	—	3	3	Sweater Girl.....	mus-mys A
—	5	9	Miss Annie Rooney.....	com AYC	—	7	8	Sweetheart of the Fleet.....	mus-com AY
—	2	5	Mississippi Gambler.....	mus-cri-mel A	—	—	—	Syncopation.....	mus-dr AY
—	8	2	Mokey.....	com A	3	6	1	Take a Letter Darling.....	com A
—	5	3	Moonlight Masquerade.....	rom A	1	8	1	Tales of Manhattan.....	dr A
6	10	3	Moontide.....	dr A	—	12	—	Talk of the Town, The.....	com A
13	4	—	Mrs. Miniver.....	war-dr-nov AY	—	7	5	Tarzan's New York Adventure.....	mel AYC
—	4	4	Murder in The Big House.....	cri-mel A	—	12	3	Ten Gentlemen from West Point.....	hist-dr AYC
4	13	1	My Favorite Blonde.....	war-com AY	—	1	3	Texas Trouble Shooters.....	wes AYC
—	6	6	My Favorite Spy.....	war-mel AY	—	8	4	They All Kissed the Bride.....	com A
4	13	1	My Gal Sal.....	mus-dr A	—	2	3	They Raid By Night.....	war-dr AYC
—	3	1	Native Land.....	doc A	—	4	12	This Above All.....	war-nov A
—	6	7	Nazi Agent (see "Salute to Courage").....	dr A	2	15	1	This Gun for Hire.....	cri-war-mel A
—	5	1	Night for Crime, A.....	mys A	—	4	5	Through Different Eyes.....	cri-mys A
—	5	3	Night in New Orleans, A.....	mys A	—	3	—	Timber.....	war-mel AYC
—	8	4	No Hands on the Clock.....	mys-nov A	—	3	6	Tish.....	com A
—	3	3	Not A Ladies Man.....	dr A	1	8	—	Tombstone.....	wes AYC
2	2	1	Now, Voyager.....	dr A	—	1	3	Top Sargent.....	war-mel AYC
—	4	1	Old Homestead, The.....	mus-cri-com AYC	4	13	—	Tortilla Flat.....	rom-com A
1	6	1	Once Upon a Thursday.....	com A	—	1	6	Tough As They Come.....	mel A
—	7	2	One Thrilling Night.....	com A	—	1	3	Tower of Terror.....	war-mel A
—	9	—	On the Sunny Side.....	war-com AYC	8	3	—	True to the Army.....	mus-com AYC
—	5	1	Orchestra Wives.....	mus-com A	—	7	10	Twin Beds.....	com A
—	5	6	Pacific Rendezvous.....	war-mel AYC	—	3	3	Undercover Man.....	wes AY
—	9	—	Panama Hattie.....	war-mus-com A	—	6	6	Unexpected Uncle.....	com AY
—	4	3	Parachute Nurse.....	war-mel A	1	11	1	Unfinished Business.....	com AY
—	7	6	Pardon My Sarong.....	com A	—	6	3	United We Stand.....	doc AYC
—	4	—	Phantom Killer.....	mys A	—	1	5	Unseen Enemy.....	war-mel AYC
4	12	—	Pied Piper, The.....	war-mel AYC	—	10	4	Valley of the Sun.....	wes AYC
—	2	7	Pierre of the Plains.....	dr AYC	—	2	1	Vengeance of the West.....	wes A
—	8	2	Postman Didn't Ring, The.....	dr AYC	4	6	1	Wake Island.....	war-dr AYC
—	7	—	Powder Town.....	war-mel A	—	6	2	War Against Mrs. Hadley.....	war-dr AYC
—	4	—	Prairie Gunsmoke.....	mus-wes AYC	—	4	13	We were Dancing.....	com A
7	9	—	Pride of the Yankees, The.....	biog AYC	—	5	1	West of Tombstone.....	mus-wes AYC
—	6	4	Priorities on Parade.....	mus-com AYC	—	4	1	Westward Ho.....	wes AYC
—	3	4	Prisoner of Japan.....	war-mel AY	—	6	7	What's Cookin'.....	mus-com AYC
—	2	5	Private Buckaroo.....	war-mus-com AYC	—	4	7	Whispering Ghosts.....	com AYC
3	11	3	Reap the Wild Wind.....	mel AYC	—	9	4	Wife Takes A Flier, The.....	war-com A
—	6	5	Remember Pearl Harbor.....	war-mel A	—	1	3	Wildcat.....	mel A
—	3	2	Riders of the Northland.....	mus-war-wes AYC	—	4	2	Wings and the Woman.....	biog-war-dr A
—	1	3	Riders of the West.....	wes AY	—	7	3	Wings for the Eagle.....	war-dr AYC
—	6	—	Riding the Wind.....	wes AY	—	7	—	World at War.....	war-doc A
—	5	1	Romance on the Range.....	mus-wes AYC	—	5	1	Yank at Eton, A.....	com AYC
—	4	2	Rubber Racketeers.....	mel A	12	3	—	Yankee Doodle Dandy.....	mus-biog AYC
—	2	5	Sabotage Squad.....	war-mel AYC	—	6	2	Yokel Boy.....	mus-com A
2	11	3	Saboteur.....	war-mel A	—	1	3	You're Telling Me.....	com A
—	8	1	Salute to Courage (Nazi Agent).....	war-mel A	—	1	4	Yukon Patrol, The.....	war-mel AYC